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The Christian Antiquities of Northern Ethiopia

By D. R. BUXTON, Esq.

Read 23rd May 1946

A. INTRODUCTORY

THE subject of this paper is a forgotten and neglected style of architecture represented to-day by only a handful of monuments scattered among the mountains of northern Ethiopia. This is one of the by-ways of architecture, linked only obscurely with its main high-roads, and leading nowhere, unless it leads at some future time to a revived Ethiopian style. But, like other by-ways, it offers a fascinating field of inquiry, and one so little studied that the new-comer to it is free—for want of any established theories—to interpret it in his own way.

It is perhaps not surprising that this architecture of ancient Ethiopia has remained so largely unknown. Until the last few years it was a major undertaking to penetrate the central Ethiopian highlands, necessitating a journey of months by mule caravan. It is true that Portuguese travellers, the members of official embassies sent to make contact with the Ethiopian Emperors, saw most of the country as long ago as the sixteenth century, and left records of what they had seen. But for more than three hundred years no European (not even the famous Bruce) repeated their exploits; and among the small company of travellers who followed at last in the latter nineteenth and early twentieth century, few were competent to describe the ancient buildings which were but incidents in their path.

To-day an excellent system of trunk-roads (due mainly to the Italians but initiated before their time) radiates from Addis Ababa to the larger provincial centres. But it happens that none of the medieval churches in Ethiopia, with the single exception of one rock-church in the north, can be approached by road. Lalibela, the centre of the rock-church style, still mercifully preserved among its mountains from the noise and smell of motor traffic, now demands a three-day journey by mule from the nearest road. The two built-up churches of Lasta are equally remote and almost totally unknown, while the northern monasteries each require a long walk followed by a somewhat perilous climb.

Under each main heading in this paper I shall indicate very briefly the studies hitherto made of the buildings in question. Here it need only be said that no archaeologist has yet published a general account of the early Ethiopian monuments or attempted to view them together in a common perspective. Admirable work was done at Aksum, and at other pre-Christian and early-Christian sites, by the German expedition of 1906[1] and they used such material as existed on the later rock-churches for comparative purposes. If that material had been more adequate they would certainly have anticipated a large part of my present theme; but they knew nothing of the surviving built-up churches of Lasta of which I shall have much to say below. No serious study of the rock-hewn churches of Lalibela and that district was ever made until the Italian archaeologist Monti della Corte undertook work there—which he rightly describes as a reconnaissance—in 1939. His book,[1] an agreeable, popular volume with fine photographs, is a valuable source of material upon which scholarly

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[1] *Deutsche Aksum Expedition*, vol. ii by Krencker, Berlin, 1913. Abbreviated *D.A.E.*

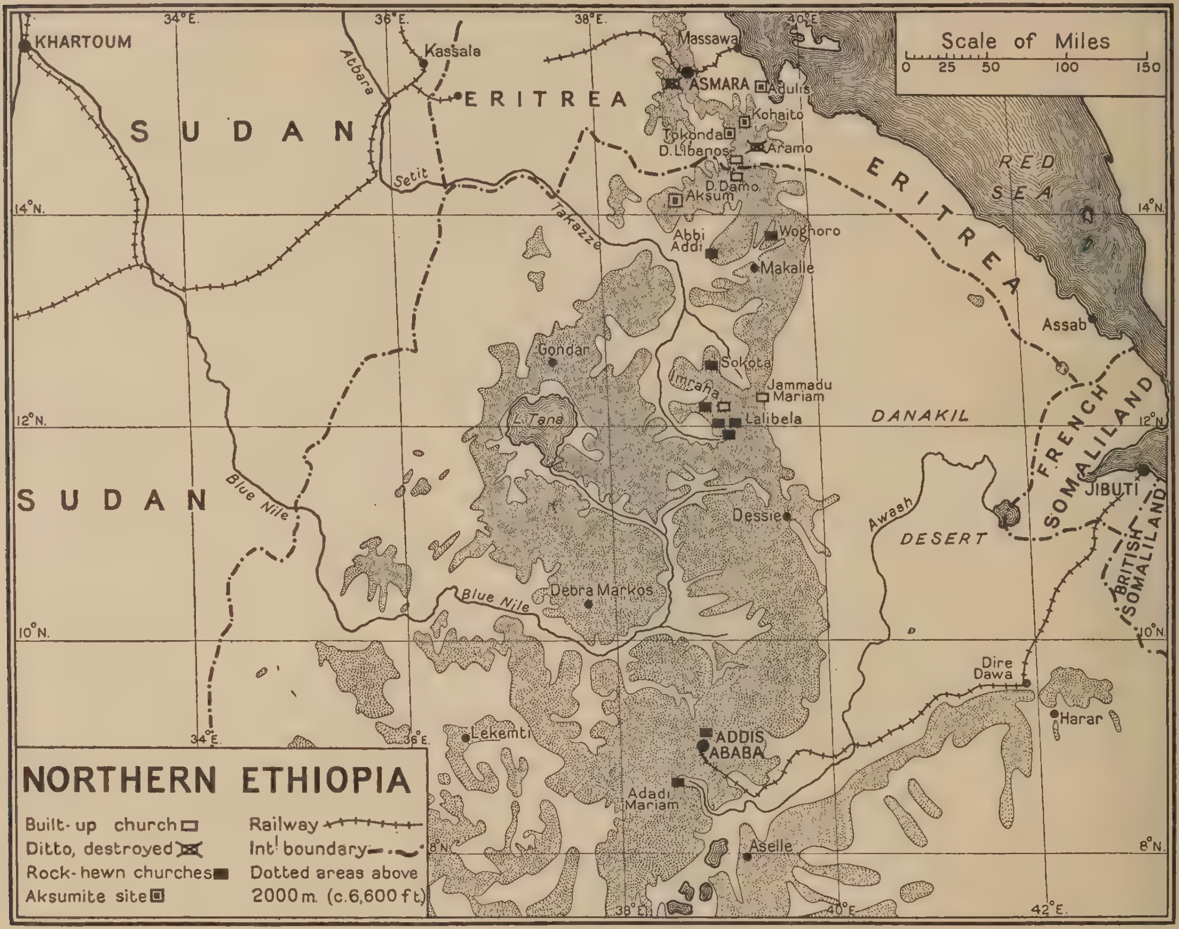
NORTHERN ETHIOPIA
Built-up church
Ditto, destroyed
Rock-hewn churches
Aksumite site
Railway
Int! boundary
Dotted areas above 2000 m. (c. 6,600 ft)
Scale of Miles
0 25 50 100 150
34°E.
36°E.
38°E.
40°E.
42°E.
14°N.
12°N.
10°N.
8°N.
KHARTOUM
SUDAN
SUDAN
Kassala
Atbara
ERITREA
ERITREA
Setit
Takazze
Massawa
ASMARA
Adulis
Kohaito
Tokonda
D. Libanos
Aramo
D. Damo
Aksum
Abbi Addi
Woghoro
Makalle
RED SEA
Assab
Gondar
L. Tana
Sokota
Imraha
Jammadu Mariam
Lalibela
DANAKIL
FRENCH SOMALILAND
JIBUTI
BRITISH SOMALILAND
Blue Nile
Blue Nile
Dessie
Awash
DESERT
Debra Markos
Dire Dawa
Harar
Lekemti
ADDIS ABABA
Adadi Mariam
Aselle

FIG. 1

work might even yet be based, but the text, which treats of Lalibela in isolation, adds no original thought to our subject.[2]

My own object is to present a connected picture of the early Ethiopian monuments, which seem to me, as the result of some study and reflection, to represent a single style of very marked characteristics. Its ultimate origins may be various and this difficult question must be touched upon. But, through the amalgamation of different elements, a style was produced which is peculiar to Ethiopia. We can trace it from early Christian times onwards through the middle ages until, in the thirteenth century, it was transformed, still retaining all its characteristics, into solid stone.

In this paper I have limited myself almost entirely to an architectural viewpoint,

[1] Monti della Corte, *Lalibela, le chiese ipogee e monolitiche e gli altri monumenti medievali del Lasta*, Rome, 1940. Abbreviated Monti della Corte.

[2] See p. 23.

whereas a full study would have to consider much traditional and legendary material, many written records as yet unpublished, as well as the evidence afforded by the subsidiary arts. I wish also to make it clear that the material here presented is provisional, and the plans and sections for the most part diagrammatic. While engaged in a research on locusts which involved travelling all over Ethiopia I found opportunities to visit nearly all the early churches hitherto discovered, a piece of good fortune which I appreciated to the full. But I had no leisure for careful studies, never attempted accurate measurements or drawings, and was hampered by the war-time scarcity of photographic film. As a rule one would hesitate to offer such material to a learned society. But in this case I feel justified in doing so because of the neglect the subject has suffered, and because of the remoteness of the monuments, some of which may not be visited again by Europeans for years to come.

B. THE AKSUMITE STYLE

We are concerned in this paper with the Christian antiquities of Ethiopia, but in order to understand these we must briefly consider the pre-Christian style on which all Ethiopian architecture was founded, and the early history of the Ethiopians themselves by whom these methods of building were practised.

A popular account of early Ethiopian history has been made available by Kammerer.[1] Here it is only necessary to recall that the Ethiopians are not an African but an Asiatic race, of Semitic affinities, who for some centuries before the Christian era were crossing the Red Sea and settling in the northern part of the Ethiopian highlands. Here was founded, about the beginning of the Christian era, their great capital city of Aksum. It was a king of Aksum who, about the middle of the fourth century, was converted (and started converting his people) to Christianity; and from then until now Aksum has remained the sacred city of the Ethiopians, though it ceased to be their capital many centuries ago.

Through Adulis, a Red Sea port not far from the modern Massawa, the Aksum kingdom communicated with the outside world, and such communications were more extensive at that early period than they ever have been since until the present epoch. The kingdom of Aksum was part of the civilized world, and influenced to some extent by Greek culture. Adulis was, in fact, a Greek port, but as the foundations of typical Aksumite buildings are found there I have marked it on the sketch-map as an Aksumite site.

A glance at the map (fig. 1) shows, very roughly, the position of the ancient kingdom. Only the principal places are shown—Aksum itself, the port of Adulis, and two very important sites on the trade-route which joined these towns: Kohaito and Tokonda. It will be noted that the present frontier between Ethiopia and Eritrea is highly artificial, cutting the ancient kingdom into two, so that the places mentioned, except for Aksum itself, now fall within the boundaries of Eritrea.

The monuments of the Aksum kingdom were studied minutely by the German expedition of 1906, whose splendid report is a mine of information, difficult to exhaust. With the exception of the famous stelae, to be mentioned shortly, little remains above ground. But the foundations which do remain are extremely characteristic.[1] They consist of a stone plinth whose sides, instead of being vertical, take the form of a series of narrow steps (cf. plate XI *c* where this feature is seen copied in solid rock). The plans of these buildings always show portions of the walls recessed, and portions projecting, though the arrangement varied in detail (fig. 2). Usually the corners project while the intervening walls are recessed in one stage (fig. 2 A) or in two stages (fig. 2 C). But a small building at Tokonda shows an opposite arrangement, the central portions of the walls being made to project (fig. 2 B). The superstructure rested usually on monolithic columns; many of these survive. Traces of stairways, arranged round a square central block of masonry, show that these buildings had at least one upper story, and the solidity of the foundations suggests several stories. The superstructures were, however, built in perishable material and nothing remains of them.

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[1] Kammerer, *Essai sur l'histoire antique d'Abyssinie*, Paris, 1926.

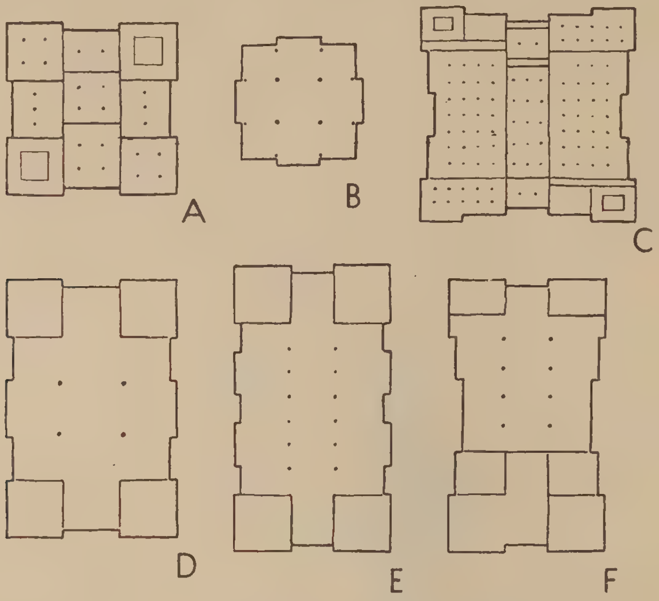

FIG. 2. Aksumite plans (from *D.A.E.*)
A, C, F. Aksum B. Tokonda D. Adulis, Kohaito, Debra Damo, Imraha
E. Adulis, Kohaito

The earlier plans are all founded on a square, the four sides being of equal length. The ground floors usually consisted of a number of small rooms, there being no main central space. Krencker concludes that these buildings were not places of worship but palaces, and that the principal rooms were on the upper floors.

Other foundations exist whose plans are drawn out to form an oblong, always, however, retaining the typical indentations in the walls, of which there may be two or more on the long sides. Thus *D* and *E* (fig. 2) appear to be derived from *A*, and *F* from *C*. In every case there is reason to believe that these elongated foundations belonged to Christian churches. They differ from the 'square' plans not only in their elongation but in having a large principal space divided by two rows of columns into what we may call nave and aisles; moreover, these buildings are orientated. The plan shown in *D* (fig. 2) is of special interest for it was used in the two most important built-up churches which still stand in Ethiopia—Debra Damo and Imrahanna Kristos.

---

[1] *D.A.E.*, pp. 96–106.

There is evidence[1] that these characteristic plans, in their original square form, derived from southern Arabia, whence the Ethiopians had come. The elongation of the plan, with accompanying modifications, must, however, have been due to the influence of Christian basilican churches in some other country. We return to this subject in the section on Debra Damo.

It has been said that the evidence of the foundations alone points to the Aksum palaces having been surmounted by a superstructure[2] of one or more upper stories, as shown in Krencker's reconstruction (fig. 14). In making this reconstruction, however, two other sources of evidence were used: the surviving church at Debra Damo (see next section) and the great stelae at Aksum, of which a little must now be said owing to their exceptional interest and close connexion with the Christian antiquities.

These stelae[3] are the most striking monuments remaining at Aksum. They were among the largest single blocks of stone ever manipulated in the ancient world, for the biggest of them, now fallen and broken in pieces, had a total length of 33 metres, or 110 ft., and thus exceeded the tallest known Egyptian obelisks. The single example still standing erect is sufficiently striking, standing 21 metres, or 70 ft., above the ground. These extraordinary monuments are not obelisk-shaped. They have an oblong cross-section with the central portions of one or more faces recessed as in the plans of Aksumite buildings. They taper gradually towards the top and terminate in a crescent-shape which was the symbol of Mahrem (corresponding to Ares)—a god worshipped by the Ethiopians in pre-Christian times. The stelae are, therefore, anterior to the middle of the fourth century, when Christianity was officially adopted in Ethiopia.

From our present point of view—the reconstruction of the old Aksumite buildings —the special interest of the great stelae lies in their decoration. They are elaborately carved to represent towers of many stories. The sample still standing shows nine stories; the monster now collapsed had no less than thirteen. Each story is marked by a tier of windows, those of the bottom story being smaller than any of the others; while a door, complete with lock or ring, is represented at the base of the monolith (fig. 7). The carved door- and window-frames of these stelae, and the whole of the intervening wall-spaces, imitate with scrupulous accuracy the methods of construction employed at Debra Damo, which will be described in detail in the next section. The conclusion is inescapable that these were the methods generally used in early Aksumite buildings, which may be reconstructed accordingly. Moreover, the whole conception of these monoliths suggests that a many-storied tower was the architectural ideal of the age, and one may safely conclude that some at least of the old Aksumite palaces had as many stories as their architects dared to build.

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[1] *Ibid.*, p. 100.

[2] *Ibid.*, p. 107. The interesting subject of the corner-towers shown in this reconstruction is discussed below (p. 20). The remarks on columns and capitals (p. 37) are also relevant.

[3] *Ibid.*, pp. 10–30.

C. THE BUILT-UP CHURCHES

We now pass on to those early built-up churches which still survive, or survived until recently. They are a small group, remnants of a once widespread style, but we may be thankful that the accidents of site and history have enabled even these few to come through the troubled centuries unscathed. Up to the sixteenth century there must have been many such churches, but the Moslem invaders of that period destroyed all they came across, sparing only what they could not find, or failed to reach. Thus the two surviving northern churches owe their preservation to inaccessibility; the two others farther south are effectually hidden in caves.

The sketch-map shows the approximate position of each of these churches, whether surviving or recently destroyed. The northern group coincides with the Aksum kingdom. The later, outlying examples in Lasta illustrate a stage in the extension of Ethiopian influence southwards during medieval times. There are, indeed, traces of Aksumite civilization in the same district, showing that the old kingdom began colonizing southwards at an early date. But in due course this impenetrable highland area became a Christian centre of the first importance, and from the tenth to the thirteenth century the Zagwé kings made it the centre of their dominions. Sprung from the local Agau race of Waag and Lasta, they were a 'usurping' dynasty not of the Solomonic line. But their achievements, at least in architecture, have justified the usurpation. To one of these kings—Imrahanna Kristos—we owe a wonderful built-up church which will shortly be described in detail; to another, the famous and saintly Lalibela, are due the unique excavated churches which will always be associated with his name.

1. *Debra Damo* (pls. I and II)

The most ancient and the most perfect of early Ethiopian churches belongs to the monastery of Debra Damo, perched on a mountain-top in Tigré, close to the Eritrean border. The photograph (pl. 1*a*) of the perilous rope-climb by which alone the monastery can be approached shows how it is that this ancient church still stands. Evidently the destructive lust of man has done far more to obliterate the ancient Ethiopian style than the winds and rains of a thousand years. Debra Damo is fully exposed to the elements but it was shielded, through its inaccessible position, from deliberate assault. It is in fact recorded that the Moslem invaders of the early sixteenth century besieged this mountain in vain.

Debra Damo was studied in 1906 by the German Aksum Expedition, who, in the short time at their disposal, and under most difficult conditions (for they were not permitted to enter the main body of the church), carried out a very fine piece of work.[1] I have used their plan and sections with the minor modifications indicated, also their perspective view (fig. 3). I have come across no record of subsequent visits to the monastery by Europeans up to the Italian régime. Under Italian auspices the walls were provisionally shored-up to prevent the collapse of the church which was (and is) imminent, but if any studies were made of the building they do not seem to have been

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[1] *D.A.E.*, pp. 7–10, 105, 168–94. See also *Guida dell' Africa Orientale Italiana*, Milan, 1938, p. 274 (abbreviated *Guida*). I must here acknowledge my indebtedness to this excellent guide-book on the lines of *Baedeker* through which I was first made aware of several buildings mentioned in this paper.

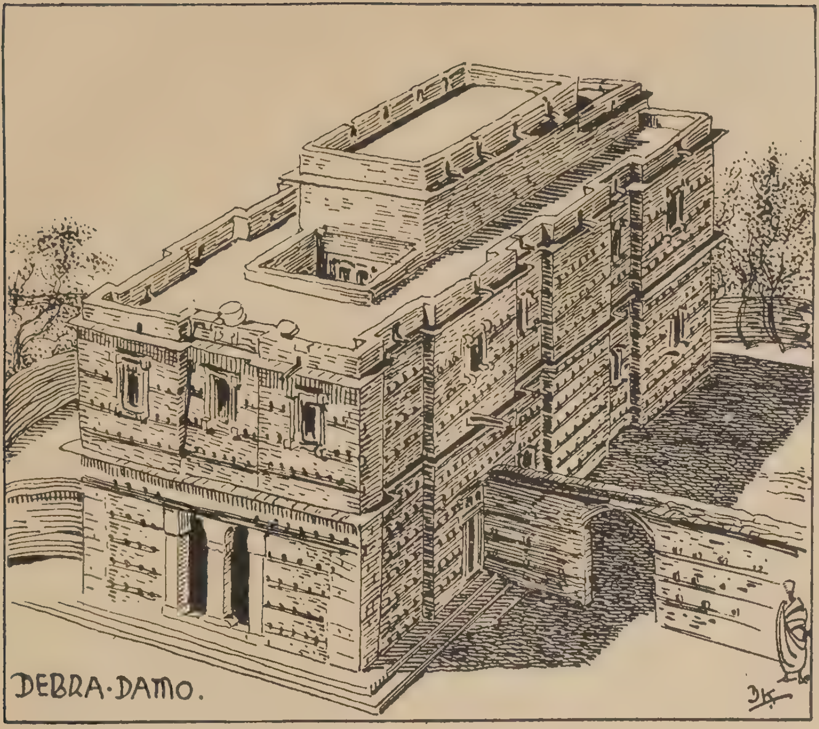

FIG. 3. Debra Damo. Perspective view (from *D.A.E.*)

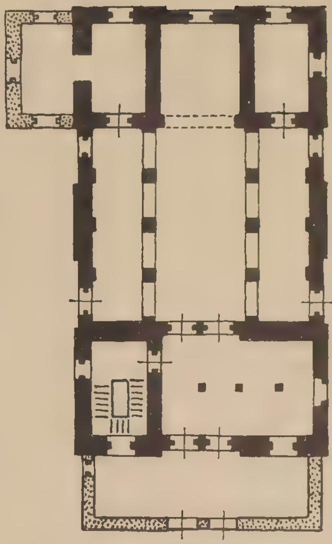

FIG. 4. Debra Damo. Plan (from *D.A.E.*)

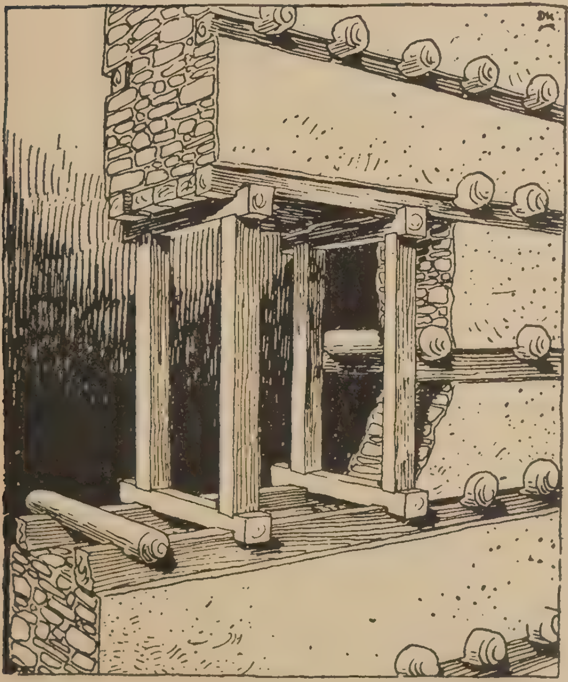

FIG. 5. Wall and window construction (from *D.A.E.*)

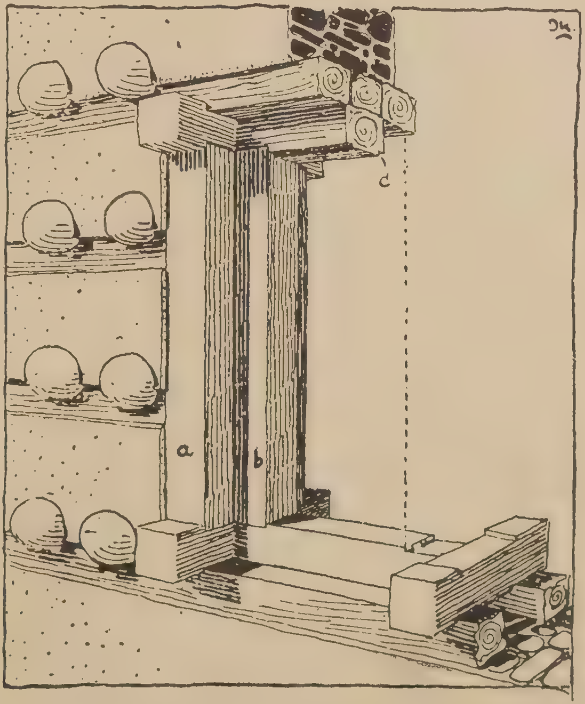

FIG. 6. Window and door construction (from *D.A.E.*)

published. My own visits to the monastery were made, with English friends, in October 1944 and May 1945, and on both occasions we were received most hospitably by the monks.

The plan of this church (fig. 4) follows the type represented in fig. 2D. The 'indentations' are, however, very shallow and executed within the depth of the walls, the inner surfaces of which are not affected. Part of the foundation-plinth is exposed and has the 'stepped' character seen in all the Aksumite buildings.

The walls, with their door- and window-frames, are constructed in a most characteristic fashion, well shown in figs. 5 and 6 which I have borrowed from Krencker.[1] Except at the corners, where squared stone is used, the walls are built of small rough stones (mostly tile-like fragments of the local rock, laid flat) set in an earthy mortar. At intervals horizontal timbers are let into the walls, one on the outer and one on the inner face of the wall at each level. These are crossed by numerous short, round logs which pass through the wall, projecting freely outside, and sometimes inside too. They are slotted below so as to fit down over the longitudinal beams which they clamp securely together, so strengthening the whole fabric of the wall. I propose to call these short logs 'binders'. Their rounded, projecting ends are sometimes called by the Ethiopians 'monkey-heads'.

The construction of the door-frames and window-frames will best be understood by reference to the figures. These frames are characterized by short timbers at each corner, passing through the wall and projecting on either side, but differing from the binders just mentioned in being square instead of round. These pieces are grooved so as to fit over the longitudinal wall-beams both top and bottom, and so contribute their share to holding the wall together, besides forming the corners of the frames. The uprights forming the sides of these frames—two on the inner and two on the outer face of the wall—are let into the corner-pieces. In effect two identical outer frames result from this method—one internal and one external. In the most usual type of door and window (fig. 6) the timbers of the outer frames are very substantial, and the reduced spaces between them are hidden by the equally heavy timbers of the single inner frame.

The effect of the outer walls at Debra Damo is not unpleasing, even in their present washed-out condition (pl. I *b*). They are diversified by the numerous horizontal lines of the wooden beams, surmounted by rows of 'monkey-heads', by windows in two tiers, and by the projecting courses which, designed to throw off rain-water, cast striking shadows during the middle of the day; while the angles of the wall-recesses, with their conspicuous quoins, provide a strong vertical emphasis. But the effect originally produced was very much more striking, since the stone courses were everywhere covered with a layer of plaster, vestiges of which remain. The west front of Debra Damo, protected by a subsequent porch, gives some idea of this original condition of the walls, but we must turn to the later church at Imraha (where, however, the monkey-heads are lacking) to realize its full decorative value (pls. IV and V).

It is these features of walls, doors, and windows that were copied in the great stelae at Aksum described in the previous section. How exact was this copying can be realized if we consider two features of minor detail which have not yet been mentioned. In pl. I *c* one of the twin western doors of the Debra Damo church can be seen. Above the door-frame we see an ornamental beam carved into a row of dentils; it is limited at either end by additional projecting blocks. Further, the free edge of the lintel of the inner door-frame is channelled—for what purpose I am not sure. Reference to fig. 7 (which is typical of other such bases) shows that each of these minor features has been scrupulously reproduced over the false doors of the stelae.

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[1] *D.A.E.*, pp. 7 and 9.

We may conclude from this that the designers of the stelae, who might have ornamented their work in many other ways, admired the forms of this style not only for their practical value as a building method but also for their decorative effect. If no buildings had survived in which these features were used constructively they might in fact have been regarded as a mere abstract system of ornament. It is clear that Krencker was only able to interpret this decoration correctly by reference to the two built-up churches known to the German expedition—Asmara and Debra Damo.

The German report discusses[1] the evidence, which I shall not recapitulate, for the widespread use of this or a similar method of construction in early times. It was employed in countries as far apart as Crete, Asia Minor, and Tibet; and Krencker himself saw it actually in use, after his return from Ethiopia, in southern Asia Minor. But the Ethiopians brought it with them, without a doubt, from southern Arabia.

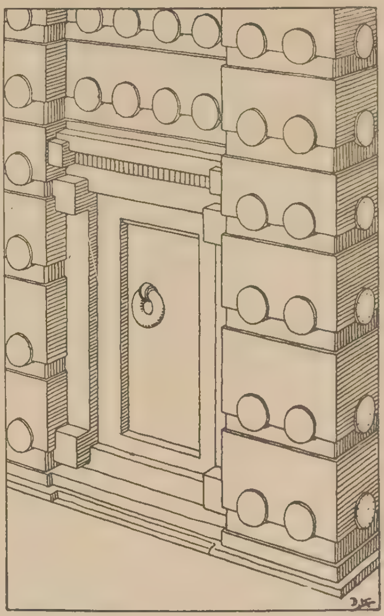

FIG. 7. Base of Aksum stela (from *D.A.E.*)

To resume the description of Debra Damo. As already implied the western porch was no doubt an addition, but a very early addition, to the original fabric. It has served the useful purpose of protecting the original west front from the weather. It is chiefly interesting for its ceiling, divided into three square compartments each covered by means of diagonal beams across the corners, followed by further diagonals (pl. I *c*). Krencker considered this ceiling to be comparatively modern, but the method at least is old, and it was interesting to find it copied in a ceiling-compartment of a rock-hewn church (pl. XI *b*).

Entering the church proper through one of the paired doorways already mentioned (see plan, fig. 4) we first find ourselves in a very dark antechamber or narthex (pl. II *a*). It has a low, wooden ceiling supported by three wooden columns carrying bracket-capitals.[2] Once accustomed to the darkness we discover that part of the ceiling is divided into numerous square compartments containing a set of carved panels which is one of the glories of Debra Damo. It comprises a multitude of animal subjects including domestic and wild animals, hunted beasts, and fabulous monsters. A portion of this ceiling was photographed, rather unsuccessfully, by the German expedition, and the subjects appearing there are discussed at length in their report.[1] My own picture (pl. II *b*) fortunately shows a different part of the ceiling, but many panels still remain unphotographed. The identifiable subjects hitherto recorded may be tabulated as follows:

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[1] *D.A.E.*, pp. 7–9.

[2] See discussion at p. 37.

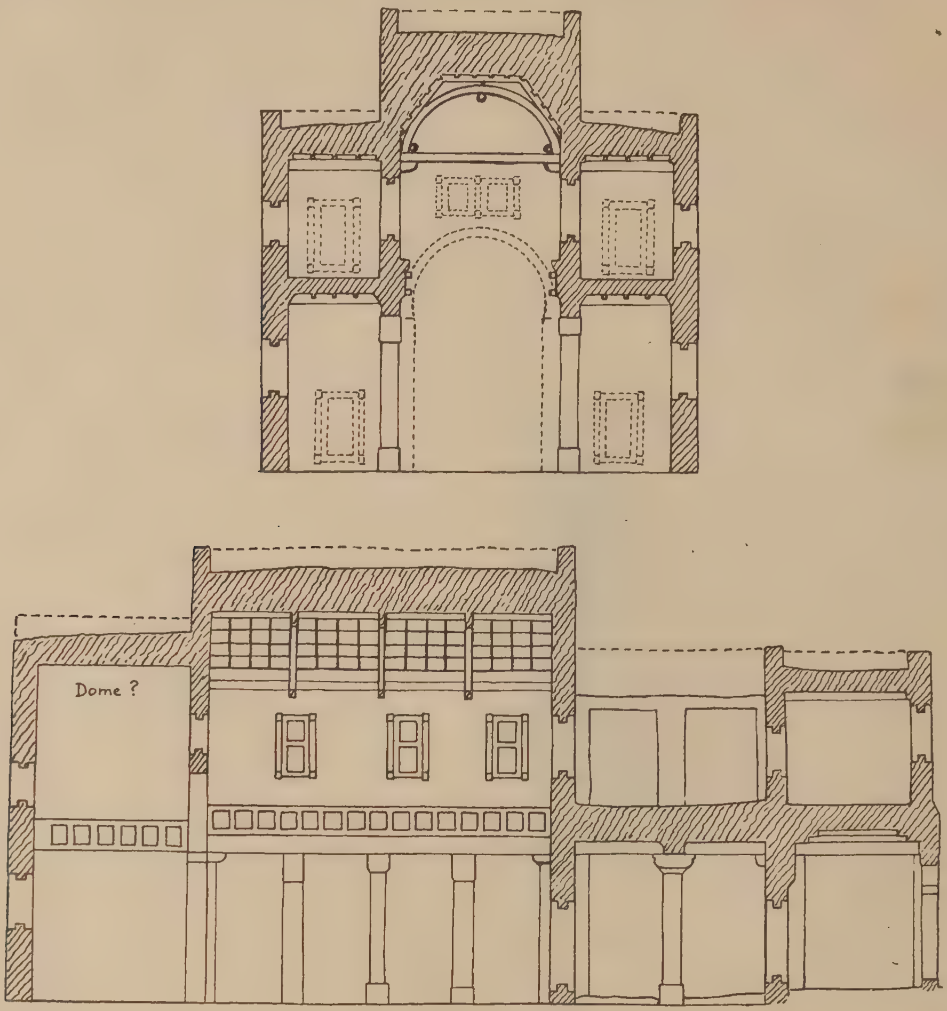

FIG. 8. Debra Damo. Sections (from *D.A.E.*)

Domestic animals—donkey and dogs; horse or mule watched by hyena; camel with stylized palm; affronted goats with rosette.

Hunted animals—antelope seized by beast of prey; ibex pursued by dogs; leopard seizing prey.

Other wild beasts—hyena (?) with huge claws swallowing something; antelope lying down with dog and gigantic tick (?); lion (?) with slanting tree behind and monkey below; lions looking opposite ways with stylized branch; snake swallowing antelope; four intertwined beasts with cross; elephant.

Birds—peacocks drinking from vase.

Fabulous beasts—griffin with wings; humped creature with beak.

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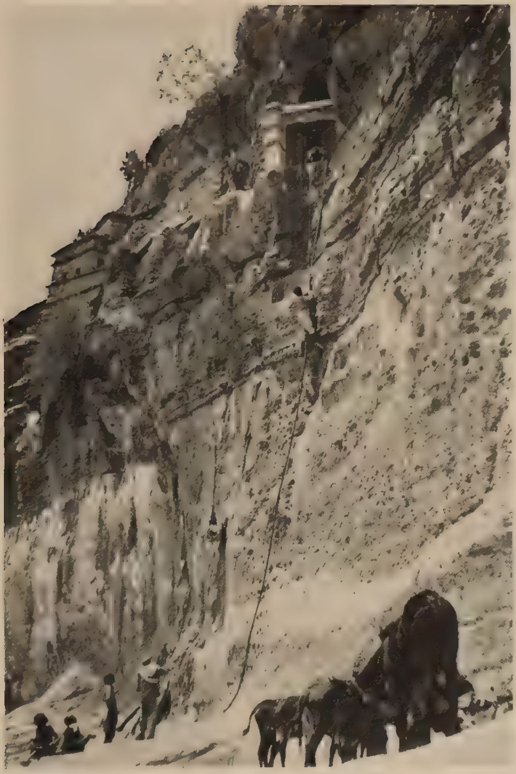
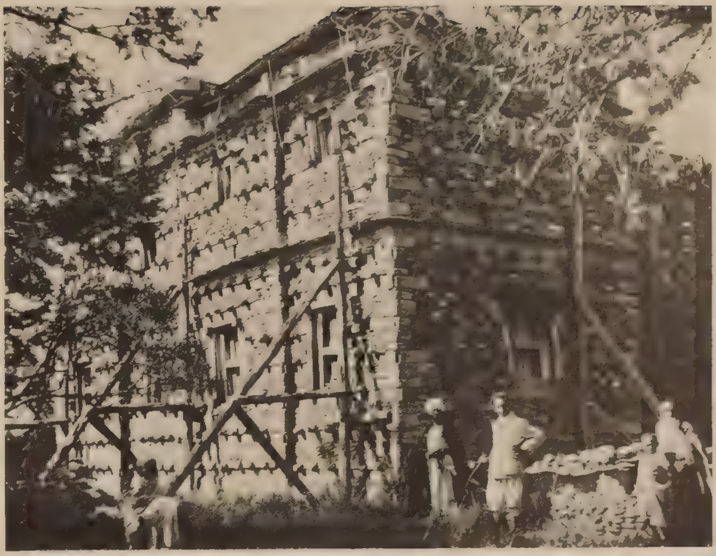
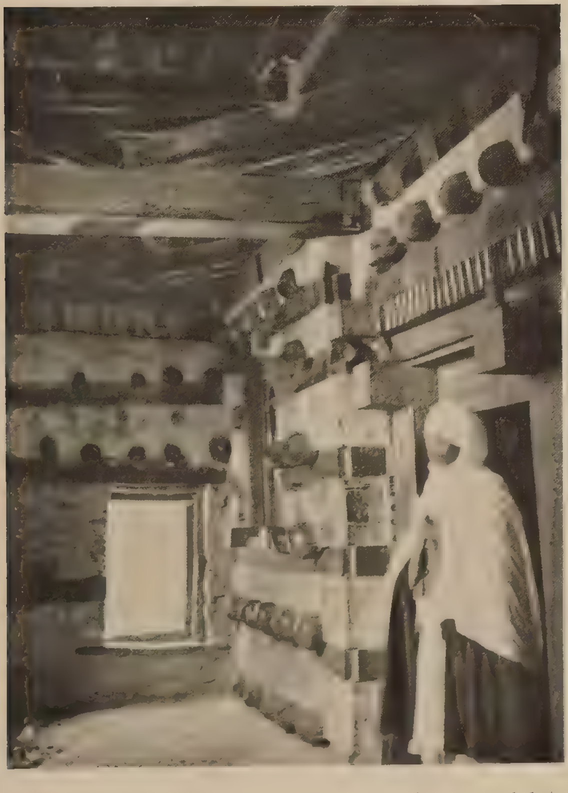
[1] *D.A.E.*, pp. 182–94.



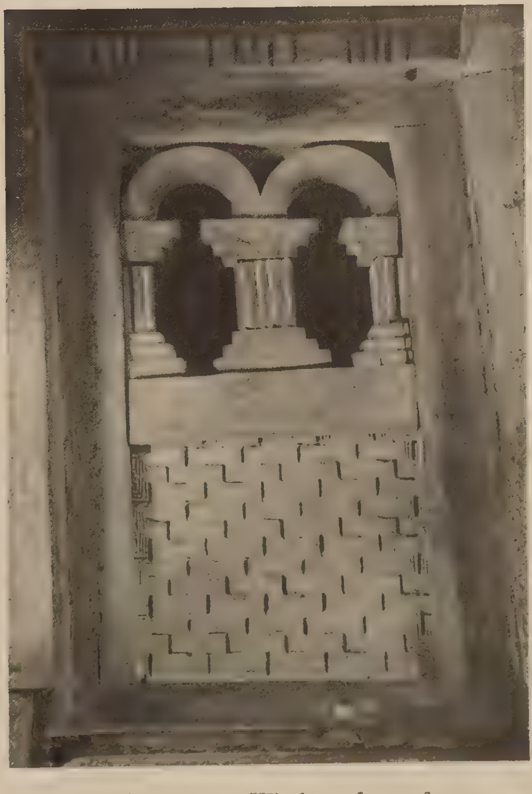
a. Debra Damo. Ascent to the monastery



b. Debra Damo. View of church from north-east



c. Debra Damo. Porch (original west front on right)



d. Debra Damo. Window of west front

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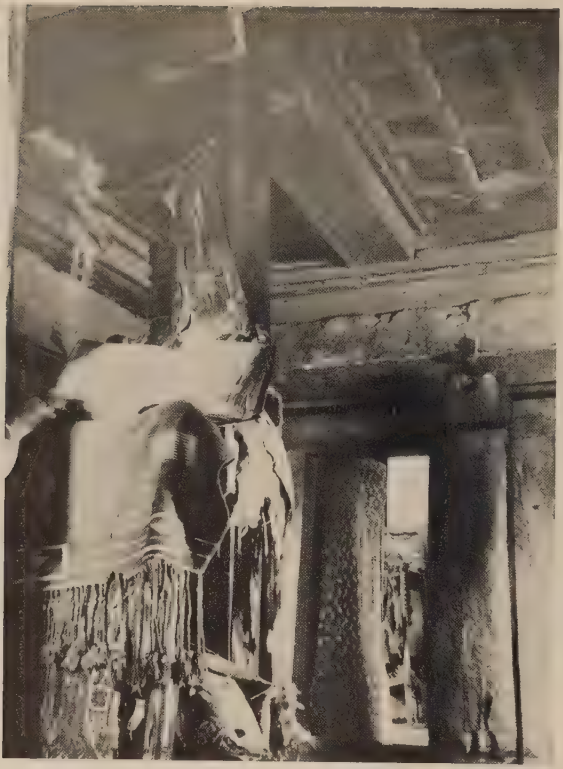
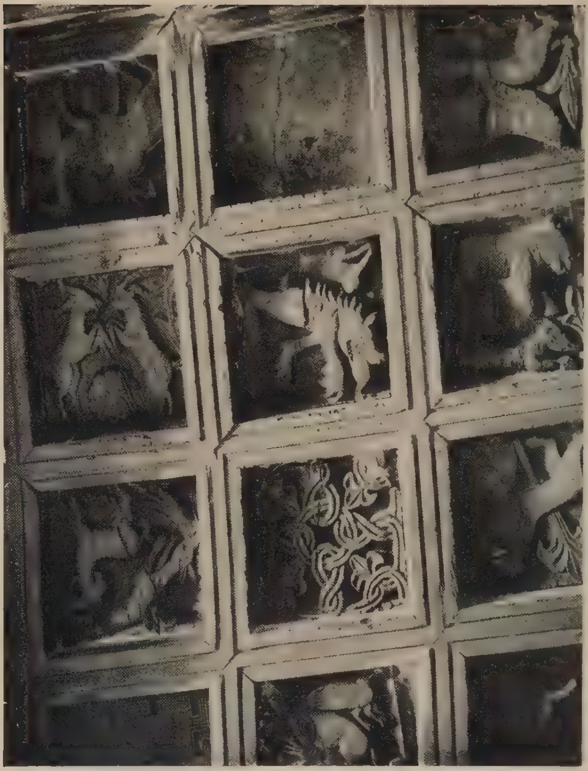
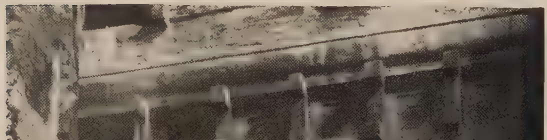


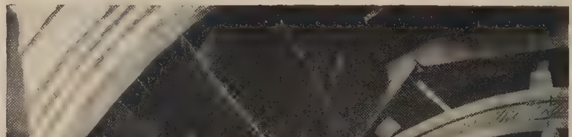
a. Debra Damo. Narthex, looking east



b. Debra Damo. Carved wooden ceiling of Narthex



c. Debra Damo. Nave with frieze, looking south-east



d. Debra Damo. Nave roof, looking east

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In general, these subjects show no Christian influence whatever, though a cross is introduced among the intertwined beasts in one of the panels mentioned. However, an elegant cruciform foliage-design occupies the central panel in each of the two sections of ceiling so far photographed. There are also some purely geometrical designs among the panels, similar to those of the frieze described below.

All the animal subjects mentioned are of Persian derivation though they were already used in the west in Mycenaean art. Through the intermediary, it is usually believed, of Sassanian and other textiles they became popular during the middle ages in Byzantine, Coptic, and even in Romanesque (including our own Norman) architecture. The immediate source of the style of these Debra Damo carvings must have been either Syria or Egypt, where such subjects were prevalent, especially between the fourth and seventh centuries.

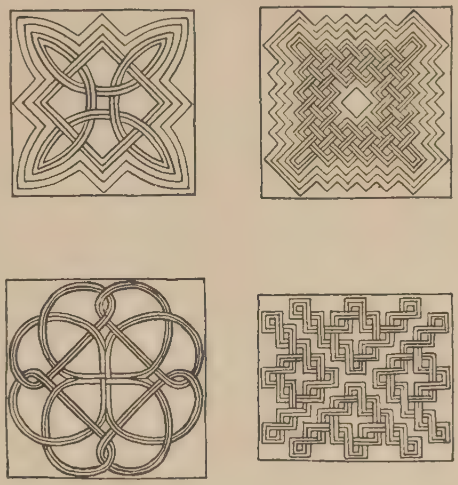

Fig. 9. Debra Damo. Frieze panels

The narthex does not extend right across the building but opens to the north into a small space containing a stairway, arranged round a central block of masonry. This stairway differs in no way from those of which traces are found in all the Aksumite buildings. It leads to a small unroofed portion of the upper story whence one may enter the rooms over the porch and narthex, and the lofts above the aisles.

As yet we have noticed no feature of this building (with the exception of a few panels bearing cruciform designs) which could not have formed part of an Aksumite palace. Without any doubt the structure of walls and windows derives directly from pre-Christian buildings, whose upper rooms, with ceilings supported on wooden posts, were probably not unlike the narthex just described. But on passing into the main interior space we encounter a different—and apparently a western—tradition. A glance at the plan (fig. 4) and sections (fig. 8) shows that Debra Damo, in its interior layout, is a variety of early Christian basilica. Two ranges of columns divide it into a nave with aisles, the latter being surmounted by an upper story. The columns—a mixed lot, probably derived from an earlier building—are monolithic and without separate capitals; they support longitudinal beams carrying the upper walls of the nave, constructed in nearly the same manner as the external walls (pl. II *c*, *d*).

Above the columns, on either side of the nave, we find a very attractive decorative feature—a kind of wooden frieze, constructed like a series of small blind windows, each containing a carved wooden panel (fig. 9). Since double and triple windows, connected in the same way, occur on the Aksum stelae we may believe, with Krencker,[1] that this was an ancient Ethiopian feature. But it is also possible that the builders were reproducing, in Ethiopian fashion, some type of classical frieze. However that may be, the frieze occupies the position of the triforium of a western church and so reinforces the impression that we are here on familiar ground. Above the frieze are windows, suggestive of a clerestory, opening into the lofts above the aisles and so admitting some indirect light to the nave.[1]

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[1] *D.A.E.*, p. 105.

At the eastern end of the nave a large carved wooden arch, slightly horseshoe-shaped, opens into the sanctuary. It is the only arch in this building, and reminds one forcibly of a chancel-arch. A curtain closes the opening, for the laity may not enter, or even see into the sanctuary of any Ethiopian church, and at this point one's observations must cease. Krencker claims to have caught a glimpse of a frieze, similar to that of the nave, carried round the walls of the sanctuary, and this is not impossible. He also shows tentatively an upper floor over the sanctuary, but this is so improbable that I have omitted it in the simplified version of his section (fig. 8). I suspect, by analogy with Imraha, Jammadu Mariam, and many rock-churches, that there is a small dome over the sanctuary.

The nave rises to the full height of the building and is covered by a curious roof (pl. 11 *d*). In the first place it seems unnecessary from a structural point of view; the span of the nave being no more than 3½ metres, it could have been roofed more simply. But practical considerations were secondary, and one may suppose that the builders were copying something which, to fulfil their conception of a church, had to be copied. The roofing system comprises three massive tie-beams supported on wooden brackets and surmounted by arched braces resembling complete wooden arches. On these latter the rest of the structure is supported (but not directly, for blocks intervene). The remaining framework consists, as in any western roof, of principals, purlins, and ordinary rafters. The roof does not rise to a ridge but is cut off flat at the top, so that the transverse connecting-pieces of the principal rafters have the appearance of collar-beams, which of course they are not. Outside, this roof does not appear, being covered in by a flat earth-roof (see perspective view, fig. 3).

We have been speaking of many features which are clearly foreign to the pre-Christian Aksumite buildings: the basilican plan, with nave and two-storied aisles; the sanctuary-arch; the peculiar roof. These must all be attributed to the influence of the Christian basilican churches of Egypt or Syria; and since the early Ethiopian Church had connexions with both countries, we need not exclude the possibility that both may have influenced Ethiopian church-building. This is a subject which calls for research, and I do not propose to discuss it. The following tentative comparisons may, however, be made with the early architectures of Syria and Egypt:

Syria,[2] The basilicas of Chaqqa (pre-Christian) and Tafkha (Christian) have high naves spanned at intervals by round arches, and aisles in two stories separated from the nave by arcades. There is no vaulting properly so called, roofs being spanned with stone slabs. The arrangement of nave and two-storied aisles (these with flat roofs) is reminiscent of Debra Damo. There is no sanctuary-arch. Other Syrian basilicas had timber roofs. Semi-domes over the eastern apse are common; they may have inspired the small complete domes found over Ethiopian sanctuaries. Pierced-stone windows may have influenced Ethiopia.

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[1] See discussion of friezes, p. 41.

[2] De Vogüé, *La Syrie Centrale*, Paris, 1865–77. See especially pls. 15–17.

Egypt.[1] The typical church of basilican plan in the Nile valley below Aswan has something in common with Debra Damo, etc., though the material was brick. There are a nave and two-storied aisles. The latter, as well as the nave, were barrel-vaulted, but this was inevitable in a country where brick was the only available building material. Further—a more striking connexion with Ethiopia—a sanctuary-arch is present.

It is clear, in any case, that after the conversion of Ethiopia to Christianity the local architecture was influenced by the Christian basilica. The resulting composite style which was used thereafter for all churches in Ethiopia was a true national product and resembles, as far as I know, nothing else in the world. Debra Damo, as the oldest extant example built in the compound manner, occupies a unique position in our study.

It is impossible to date Debra Damo with any certainty. Krencker[2] states that the style of the animal-panels would point to the sixth or seventh century, that is, shortly after the foundation of the monastery; but he admits that it might possibly be as late as the eleventh century. The earlier date seems to me improbable, and it would be unwise in any case to base any argument on the panels, which might have been brought from another building. I agree, however, at least as regards the main structure, with his latest possible limit of the eleventh century. The reasons for this are as follows:

(*a*) The plan of Debra Damo differs in no essential respect from those of the (supposed) earliest Christian churches in this area. The shallowness of the wall-indentations is the only conspicuous difference, and this is foreshadowed in some of the plans at Kohaito, etc. Moreover, the structural details at Debra Damo resemble to the point of identity those copied on the Aksum stelae, which cannot be later than the early fourth century. These considerations point to a very early date.

(*b*) The church at Imraha (p. 14) which appears to belong to the twelfth century exhibits a style which in one important respect (the multiplication of arches) has advanced far, and in another (the omission of the binders) has degenerated when compared with that of Debra Damo. This suggests that Debra Damo ante-dates Imraha by a considerable period.

My personal opinion is that the main fabric of Debra Damo belongs to the ninth or tenth century; the existing nave-roof may well be later.

2. *Debra Libanos* (*Eritrea*)[3] (pl. III)

This monastery is the twin of Debra Damo, founded at the same time (sixth century) and only a few miles away, but the two are now separated by the Eritrean frontier. It must not be confused with the more famous Debra Libanos in Shoa.

The monastery occupies a site as remarkable as that of Debra Damo—a narrow ledge half-way down a cliff. Approaching from the village of Ham, itself perched on a small, nearly inaccessible plateau, one reaches the monastery by a climb down several hundred feet of rock. The church occupies the whole width of one end of the ledge. The site is cramped and the whole building very small, but its wall and window structure are typical of the style. There are pierced-stone windows like those of Imraha. An interesting external feature is the central projection in the eastern wall, which follows the aberrant plan of the Tokonda ruin shown in fig. 2 B.

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[1] Somers Clarke, *Christian Antiquities in the Nile Valley*, Oxford, 1912. See especially p. 90 and pls. XXV and XXVI.

[2] *D.A.E.*, p. 194.

[3] *Guida*, p. 295.

I was not allowed to go beyond the western vestibule. The door-frame (pl. III *b*) leading thence to the church proper is beautifully carved, but in a style showing more in common with modern than with ancient Ethiopian carvings; and the frame itself is constructed in a manner seen only in relatively recent buildings. The main internal space appeared to be divided into two aisles only, and to lack all the distinctive features developed at Debra Damo. Nevertheless, most of this building probably dates from the same period as Debra Damo. As far as I know, it is the only example of the style still standing in Eritrea.

3. *Asmara* (*Eritrea*)

This still survived in 1906 when visited by the German Aksum Expedition whose description need not be repeated.[1] They considered that it dated from the same period as Debra Damo, though often damaged and altered since. Its walls and splendid doors with carved lintels were of the usual construction, and the interior contained two rows of columns in masonry, partly walled up to make a central sanctuary.

This precious relic, the only example of the style that the average traveller could ever have hoped to see, was destroyed or allowed to be destroyed by the Italians and replaced in 1920 by a 'picturesque Italian interpretation of the Abyssinian style'.[2]

4. *Aramo* (*Eritrea*)[3] (pl. III)

This is the second ancient church destroyed in recent times in Eritrea, in this case only a few years ago, about 1940–1. I do not certainly know whether it was built in the usual technique, or whether any record of it was made by Italian archaeologists. When visiting the site (now occupied by a new church) in June 1945 I found, however, some finely carved panels and sections of wooden arches; most of these were preserved in an out-house but one important section of arch was lying out in the open. These fragments have since been removed to the museum in Asmara.

The arches were of the same type as the carved sanctuary-arch at Debra Damo, but as three of them were represented the church must have had a more advanced layout and was doubtless much later. The geometrical designs on the soffits and edges of these arches closely resembled some found in stone at Lalibela (see p. 41 and fig. 24). The panels probably belonged to window-lattices (cf. Imraha, pl. V *b*) but may, alternatively, have been from a ceiling or frieze.

5. *Imrahanna Kristos* (*Imraha*) (pls. IV and V)

This remarkable church, of extraordinary interest in itself and incomparable in its setting, is one of two, both built inside caves, which are known to remain in the

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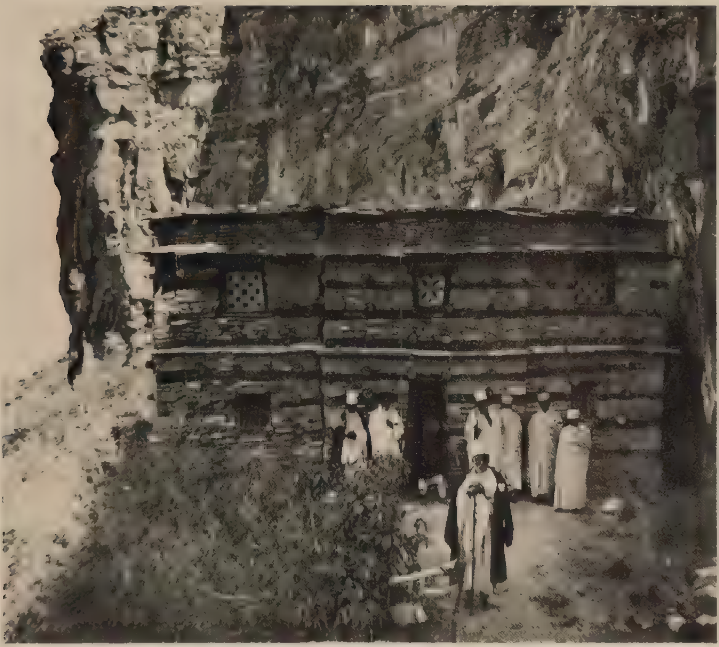
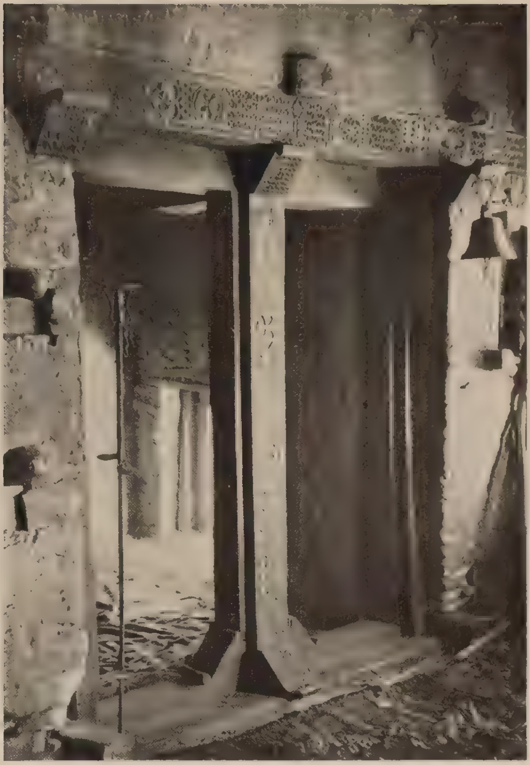
[1] *D.A.E.*, pp. 195–8.

[2] *Guida*, p. 203.

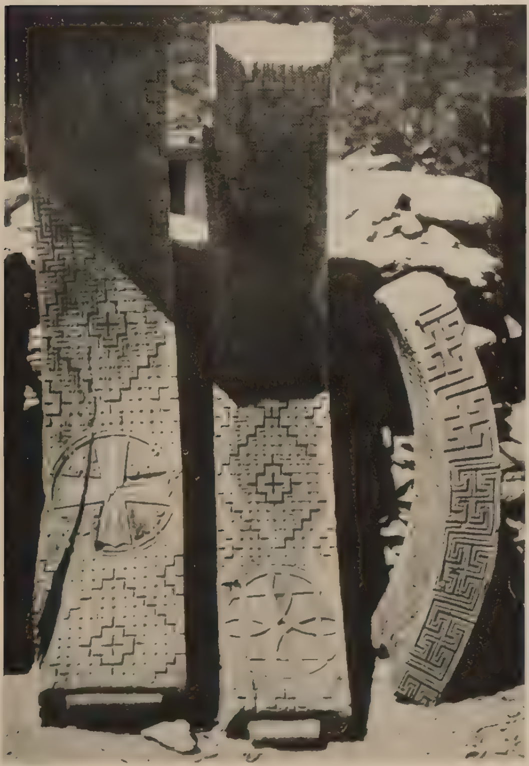
[3] *Ibid.*, p. 294.



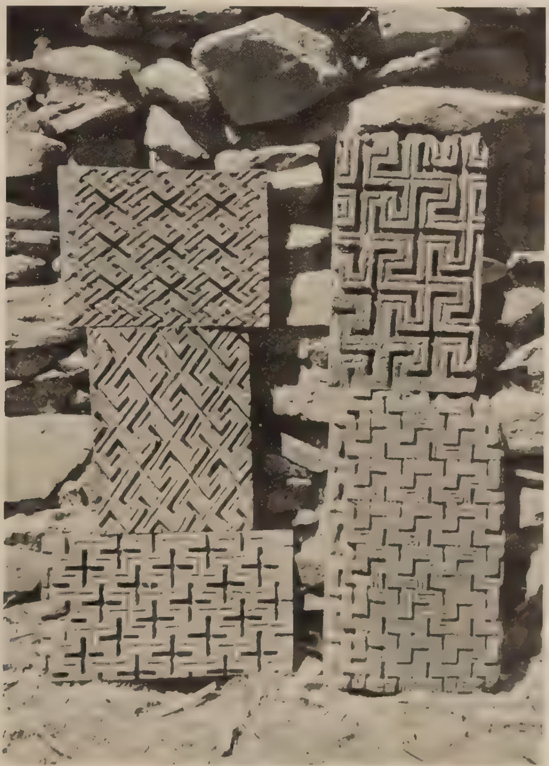
a. Debra Libanos. View of church from east



b. Debra Libanos. Door from vestibule to main church



c. Aramo. Wooden arches from church now destroyed



d. Aramo. Wooden panels from church now destroyed

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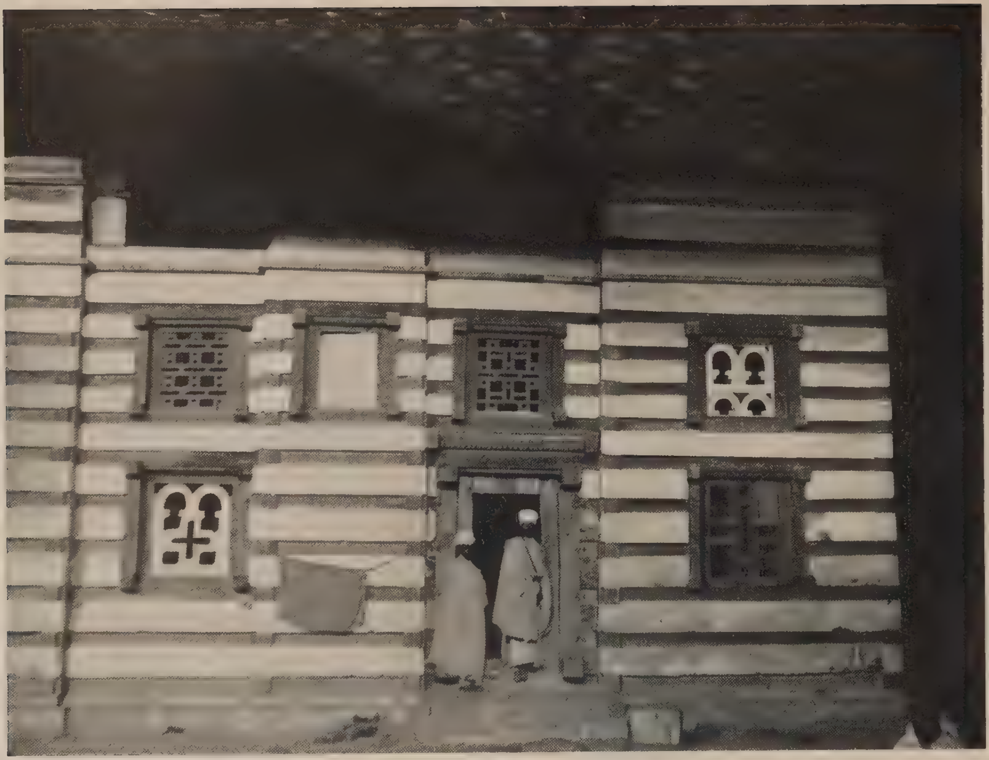
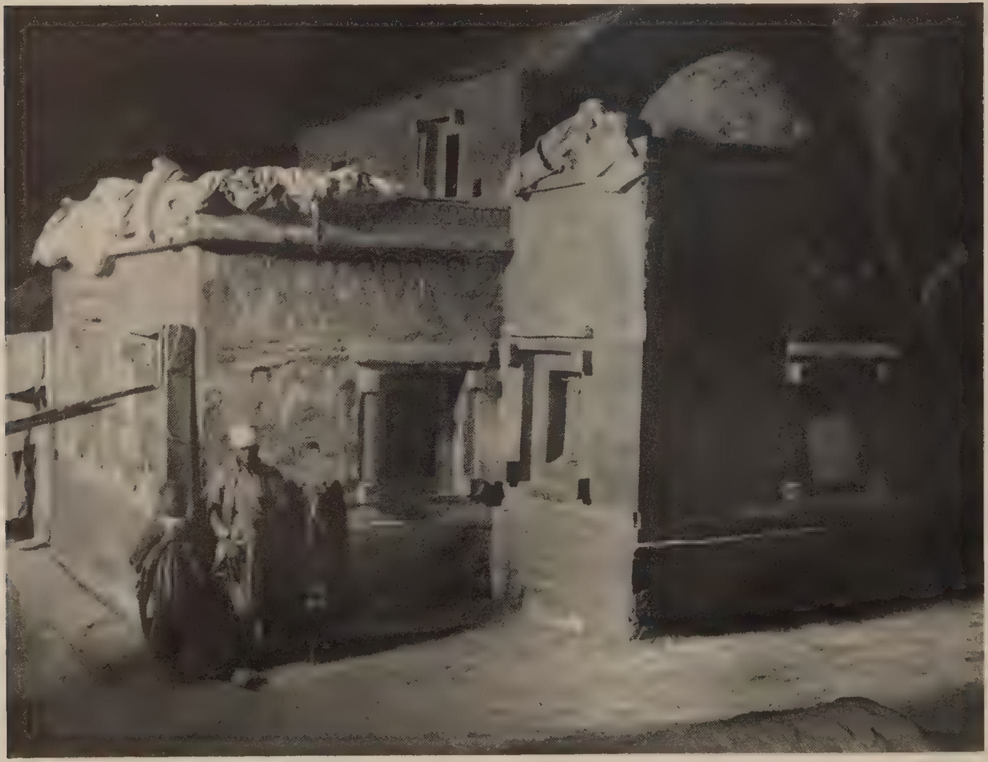


a. Imrahanna Kristos (Imraha). North façade of church in cave



b. Jammadu Mariam. View of church in cave from south-east

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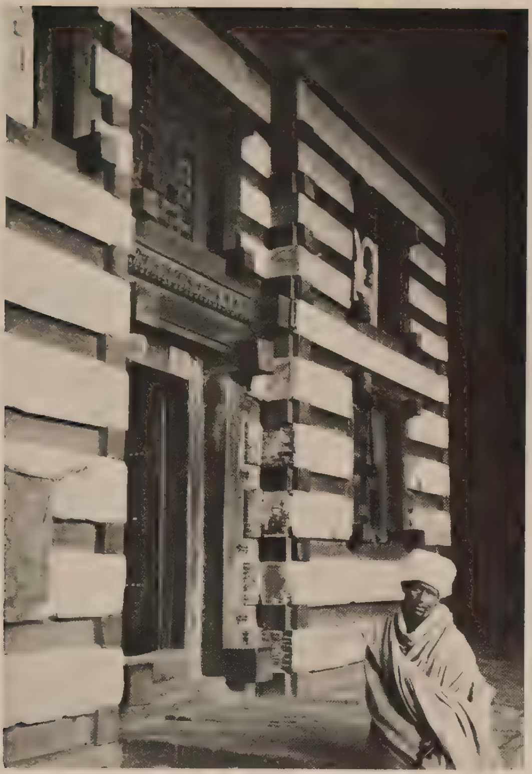
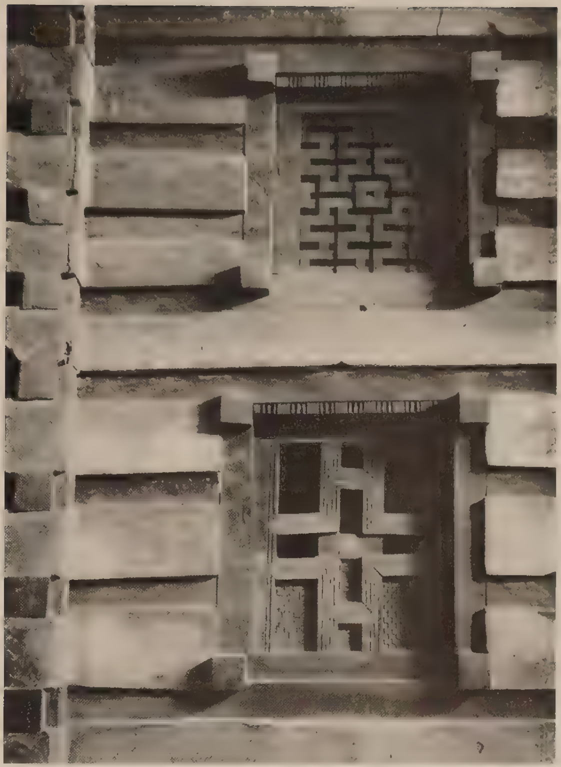
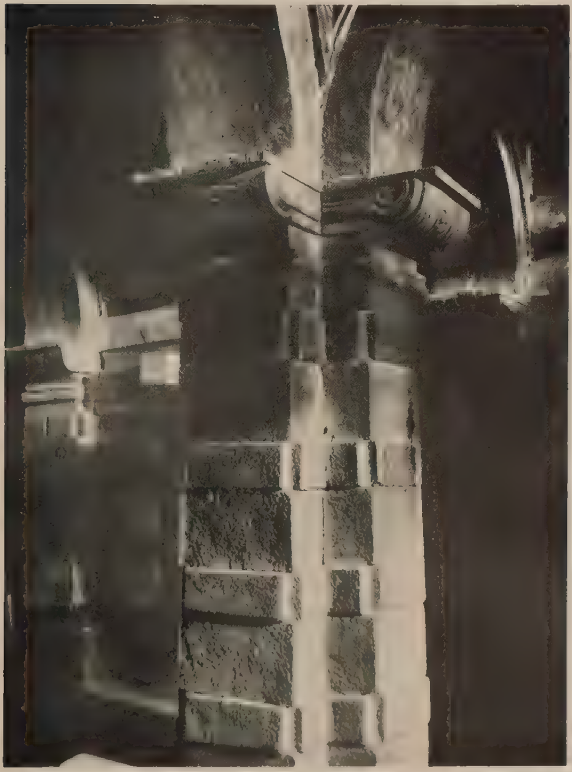


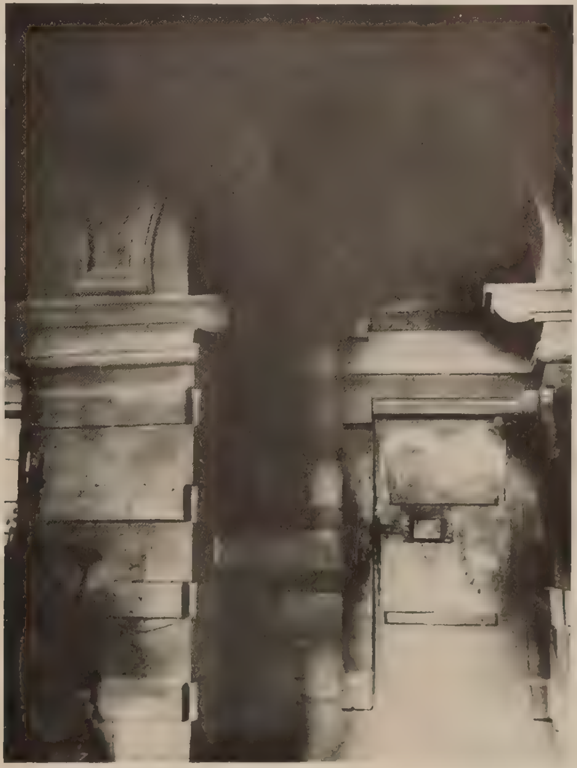
a. Imraha. Detail of north side



b. Imraha. Windows of east end



c. Imraha. View in aisle, looking south-west



d. Imraha. North–south view across nave

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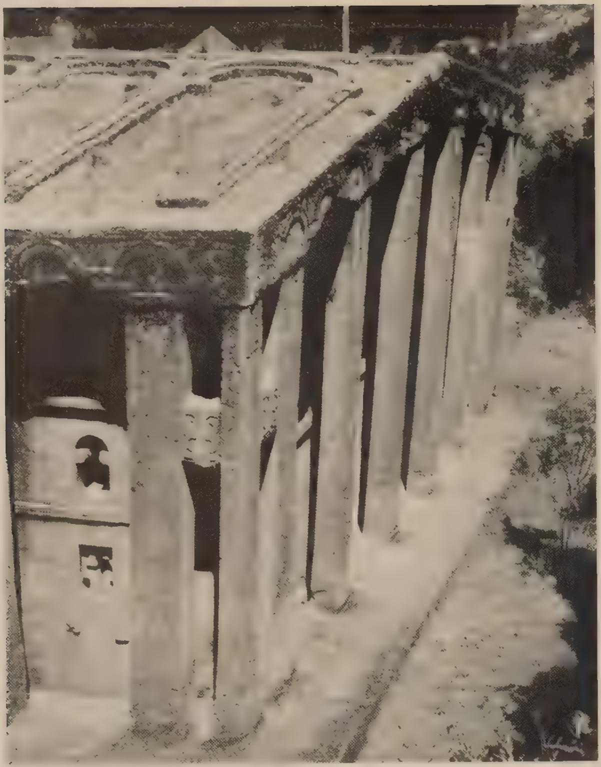
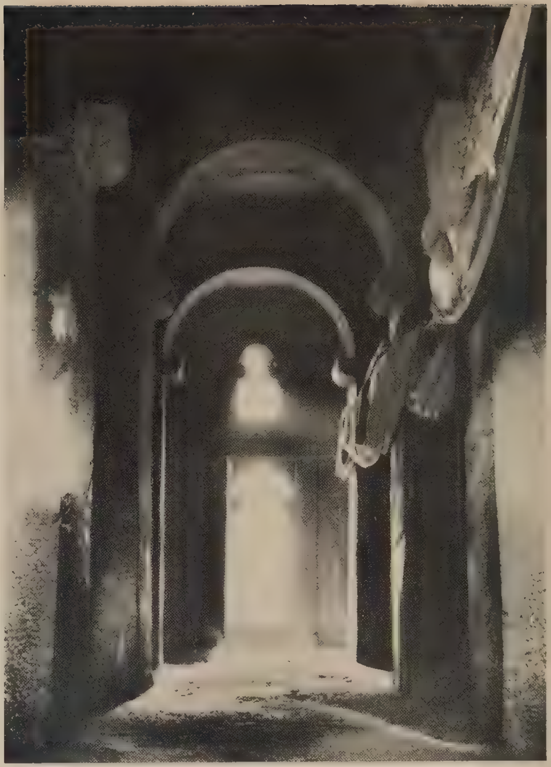
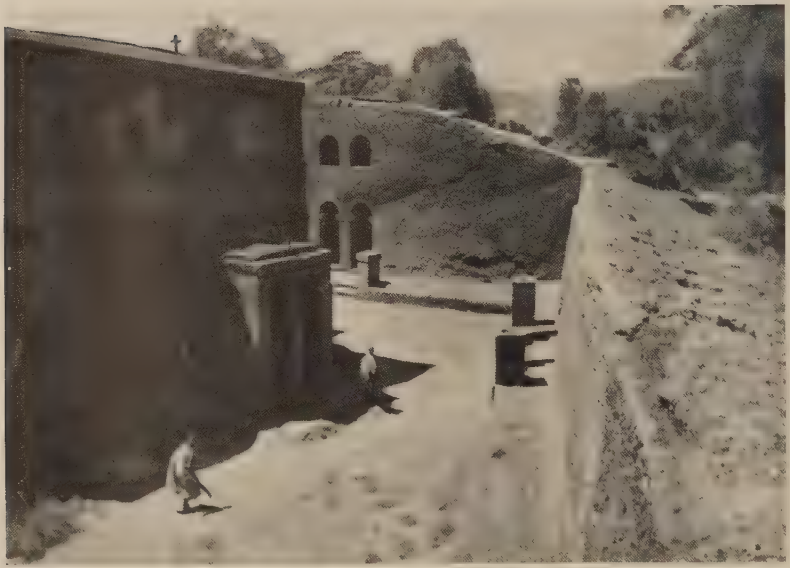


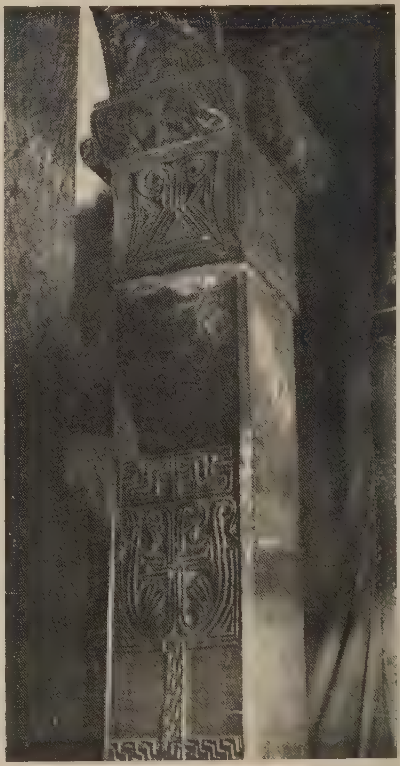
a. Lalibela. Medhane Alem. East end



b. Lalibela. Medhane Alem. South–north view of interior



c. Lalibela. Court of the Mariam church



d. Lalibela. Mariam: detail of pillar and arch

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district of Lasta. The cave at Imraha is hidden among tall juniper trees in the depths of a ravine on the western slopes of Mt. Abuna Josef, a day's journey, by an exceedingly precipitous track, to the north of Lalibela.

The first European to visit Imraha was the Portuguese priest Alvarez who passed that way while journeying to Lalibela in 1520.[1] There is no record of subsequent visits until the place was hastily noticed by the Italian archaeologist Monti della Corte in 1939.[2] He does not seem, however, to have realized the full significance of the building and his description is most inadequate. Mr. Molesworth, then attached to H.M. Legation in Addis Ababa, came across the church again during a recent journey to Lalibela and I followed in June 1945.

The church follows in all general principles the tradition of Debra Damo, though there are many differences and advances in detail which will be tabulated below. Owing to the perfect preservation of the plaster-covering of the stone courses, Imraha gives an effect of brown-and-white striping very different from the worn walls of Debra Damo, which, however, were originally treated in the same way.

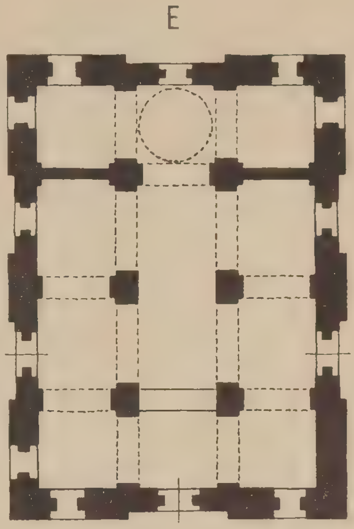

FIG. 10. Imraha plan

We must now consider in detail the resemblances and differences between Imraha and Debra Damo. The plan (fig. 10), sections (fig. 11), and isometric view (fig. 12) are the result of rough notes taken in haste, helped out by a few photographs. They are, therefore, somewhat diagrammatic. I find, however, that my own plan agrees almost precisely with Monti della Corte's[3] which has since come to hand. He does not offer any sections or elevations.

The *plan* resembles in outline that shown in fig. 2 D and used at Debra Damo. Imraha, however, has only four bays and no porch, no stairway, and no separate vestibule. Its width (*c.* 30 ft.) is about the same as Debra Damo but its length considerably reduced (*c.* 42 ft. as against 66 ft.).

The *walls* are built as described for Debra Damo except that they are entirely lacking in binders. This suggests that the original system of construction—in which the binders played an essential part—was ceasing to be understood, and that the longitudinal beams were used primarily for their decorative effect. The walls were, however, very solid and have survived remarkably well. At Debra Damo the longitudinal beams were slightly more widely spaced at the top of the wall. Here the contrary is the case, probably because the builders were determined to insert the right number before reaching the roof of the cave.

Doors and windows are of the usual construction. A much larger proportion of the wall-space is occupied by windows than at Debra Damo, and their corner-pieces to a limited extent take the place of the round binders of the original technique. The decorative strips above doors and windows are more elaborate here. The upper windows are slightly smaller owing to the closer spacing of the beams in the upper wall. Elaborate window-lattices as well as pierced-stone fillings (both absent at Debra Damo) are used here. As at Debra Damo there are three doors, but none of them are paired.

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[1] *Narrative of the Portuguese Embassy to Abyssinia during the years 1520–7*, by Father Francisco Alvarez, trans. Lord Stanley of Alderley. London, Hakluyt Society, 1881 (abbreviated Alvarez), p. 119.

[2] Monti della Corte, p. 154.

[3] *Ibid.*, p. 156.

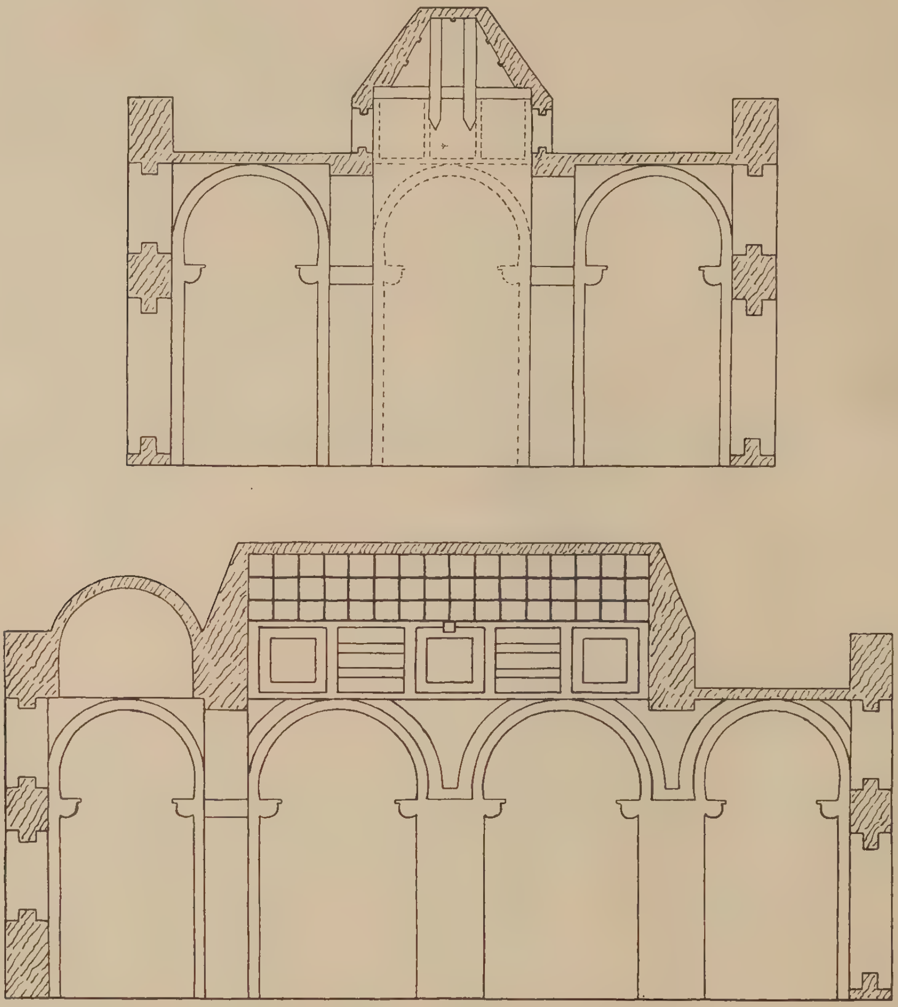

Fig. 11. Imraha sections

Roofs, etc. (see isometric view, fig. 12). The nave-roof projects like an inverted trough lying along the middle line of the building. At its eastern extremity the small sanctuary dome is likewise visible externally. The four corner-towers which form so conspicuous a feature may contain upper stories, used as store-rooms; they are therefore shown roofed-in, but if store-rooms are absent they may be hollow. I had no satisfactory view of the roofs, so that this portion of the isometric view is to some extent conjectural. The corner-towers, which have no counterpart at Debra Damo, raise an interesting train of thought which will be discussed below.

Interior disposition (fig. 11). There is a nave and aisles but owing to cramped conditions in the cave the lofts over the aisles have been omitted. Therefore, the upper windows, which would otherwise open into the lofts, are inserted just below the ceiling-level of the aisles themselves. The nave windows, which at Debra Damo communicate with the lofts, here open directly to the cave (see under *Frieze*).

The *columns* are not monolithic as at Debra Damo, etc., and should now more properly be called piers. They are very massive and are built up of stones which are made to imitate the alternate wood and plaster courses of the walls. The columns have wooden bracket-capitals which are treated logically, there being no bracket unless it is required to support an arch (see p. 38, fig. 23, and pl. V *c*, *d*).

These columns support *arches*, both transverse and longitudinal, in all the positions shown by paired dotted lines in the plan (fig. 10). This is a great advance on the single sanctuary-arch of Debra Damo. For some reason which is not obvious no arch was inserted at the western end of the nave opposite the sanctuary-arch; a lintel-beam, supported by its own brackets, is used instead. With the exception of the sanctuary-arch, which is carved, these arches are plastered over and painted.

Frieze. Owing to the impossibility of carrying this building to its natural height inside the cave there are several signs of cramping. One of these is that the frieze is placed very low over the nave-arcade (fig. 11; and compare its natural position in fig. 25 C). For the same reason the type of frieze in which windows alternate with blind panels was chosen: there was no room for a separate row of windows as at Debra Damo. This frieze makes a complete circuit of the nave, being carried round its east end (above the sanctuary-arch) and also round its west end (above the lintel).

The *nave-roof*, which extends over the two central bays and rises above the other roofs of the church, resembles that of Debra Damo in general type and has an even smaller span (about 2 metres). There are no arched braces. A single central tie-beam is joined to two vertical timbers which may be compared with queen-posts. There was, of course, no need here for an external earth-roof.

Decoration. Elaborate geometrical carvings occur on the aisle-roofs, on spandrels of the nave-arcades, and on all the capitals—a marked change from the simplicity of Debra Damo. I had no time to copy, and no film on which to photograph these designs.

Among the various characters in which Imraha differs from Debra Damo the multiplication of arches is the most important, and this shows a definite advance. It would seem that the single eastern arch of Debra Damo was a tentative introduction. At the later period represented by Imraha (and perhaps Aramo) the builders had acquired more confidence and put in arches wherever they liked, so that lintel-beams were almost entirely eliminated. These arches spring from bracket-capitals supported on built-up piers, an improvement on Debra Damo, where the monolithic columns of the nave support lintel-beams directly and bracket-capitals are confined to the narthex (see p. 38). The composite frieze of Imraha, in which perforated and blind panels alternate, may represent a later stage of evolution than the simpler frieze of Debra Damo, but they always remained alternative arrangements (see p. 41). The idea of carrying the frieze round the ends of the nave was new. A further advance is seen in the richness of the carved detail, both inside and out, which is far more abundant and applied to more elements of the building than at Debra Damo. Finally, the omission of the binders from the walls marks an evolution in style, though this is hardly to be regarded as a progressive change.

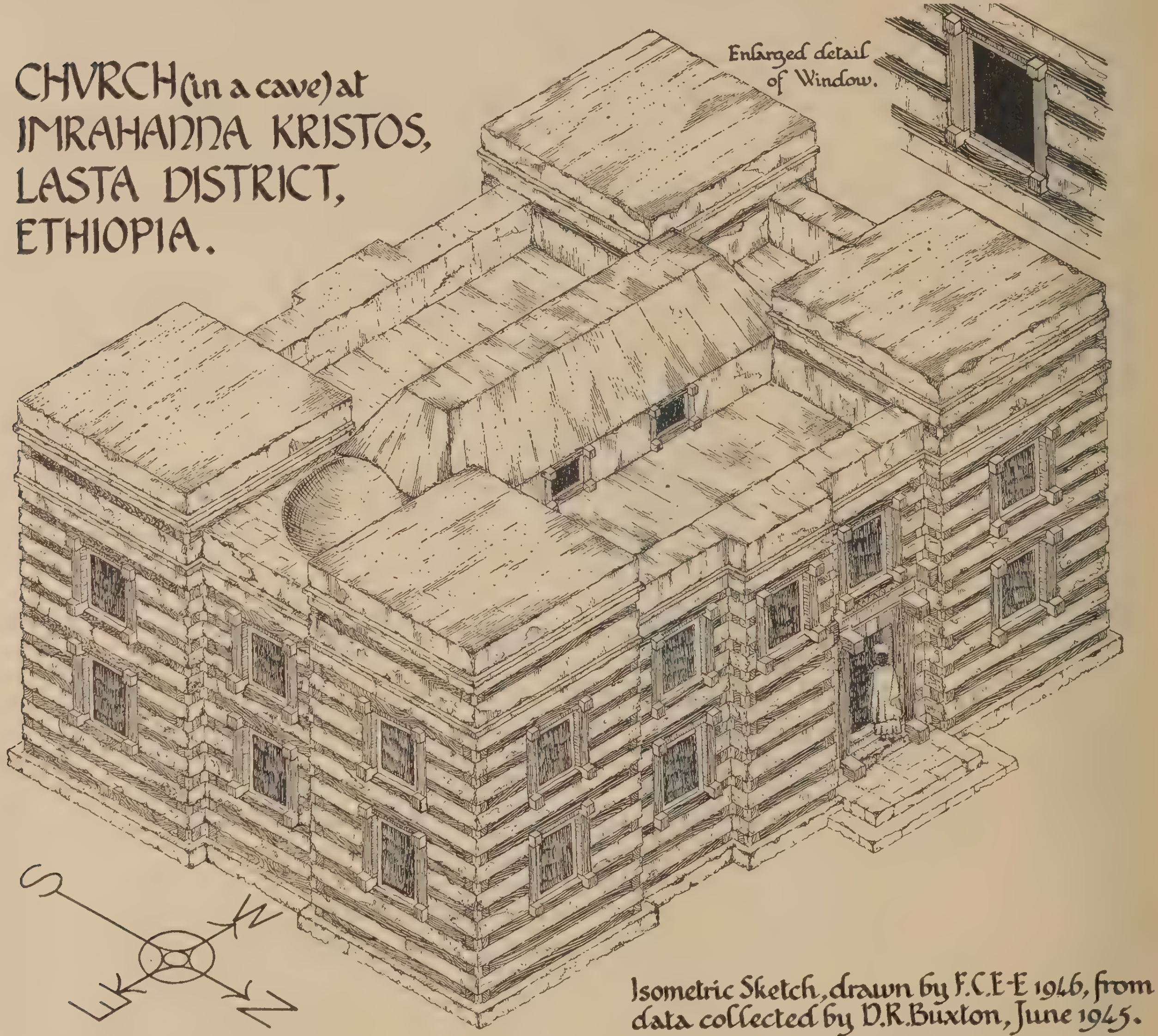
CHVRCH (in a cave) at
IMRAHANNA KRISTOS,
LASTA DISTRICT,
ETHIOPIA.
Enlarged detail of Window.
S
W
E
N
Isometric Sketch, drawn by F.C.E-E 1946, from data collected by D.R.Buxton, June 1945.

Fig. 12

Imraha and the rock-churches. Imraha is notable in itself, as a fine example of the built-up Ethiopian style, but still more notable for the light it throws on the rock-hewn churches of the Lalibela school. That these rock-churches owe much to the tradition of Debra Damo is in any case obvious. But Imraha forms a perfect link between the two, and explains the appearance at Lalibela of many features which are wanting in the primitive style of Debra Damo. These features—absent from Debra Damo but common to Imraha and Lalibela—will be briefly listed now, though this means, in effect, enumerating once more the special characteristics of Imraha. I shall indicate at the same time on which of the Lalibela churches they appear.

The wall structure, with alternate courses of timber (set back) and plastered stone (projecting), but without binders, is copied both inside and outside on the walls of the Amanuel church (pl. VIII *a*). Among the numerous ornamental window-lattices at Imraha there are four comparatively simple cross and swastika designs (pl. V *b* and fig. 19). All of these are copied in stone among the windows of the Mariam church, and one of them (at the top of column *A* in the figure) became a favourite, being used in Medhane Alem and Amanuel as well. The interior arrangements at Imraha (that is to say, the tradition of Debra Damo modified by the free use of arches) recurs both at Amanuel and Mariam. In both cases the arches spring from square piers with bracket-capitals which, however, are now treated as units, the full complement of four brackets being always present (see p. 39). The frieze at Mariam (fig. 25), which incorporates windows and runs right round the nave, closely follows Imraha; so too does the elaborate carved detail of arches and capitals. It may be said, in fact, that the rock-churches mentioned in this paragraph, which are among the most important at Lalibela, incorporate between them all the distinctive features of Imraha.

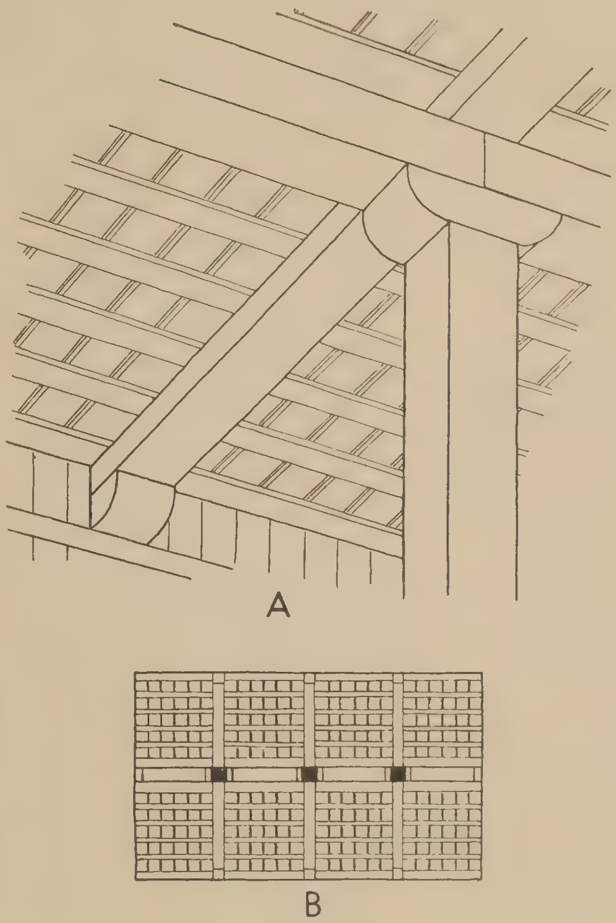

FIG. 13. Imraha. Roof construction

The influence of Imraha (and no doubt of other churches, long since destroyed, in the same style) is so clearly marked at Lalibela that one would in any case attribute to Imraha a date anterior to the rock-churches, which belong to the early thirteenth century. This supposition is confirmed by the local tradition according to which it was Imrahanna Kristos himself—a monarch of the twelfth century—who built the church that bears his name.[1]

Imraha and the Aksumite style. We have seen that Imraha throws light on future developments, explaining the appearance at Lalibela of many features whose origin would otherwise be obscure. But one of Imraha's special characters—the corner-towers—also throws light on the past, providing valuable evidence for the reconstruction of Aksumite buildings.

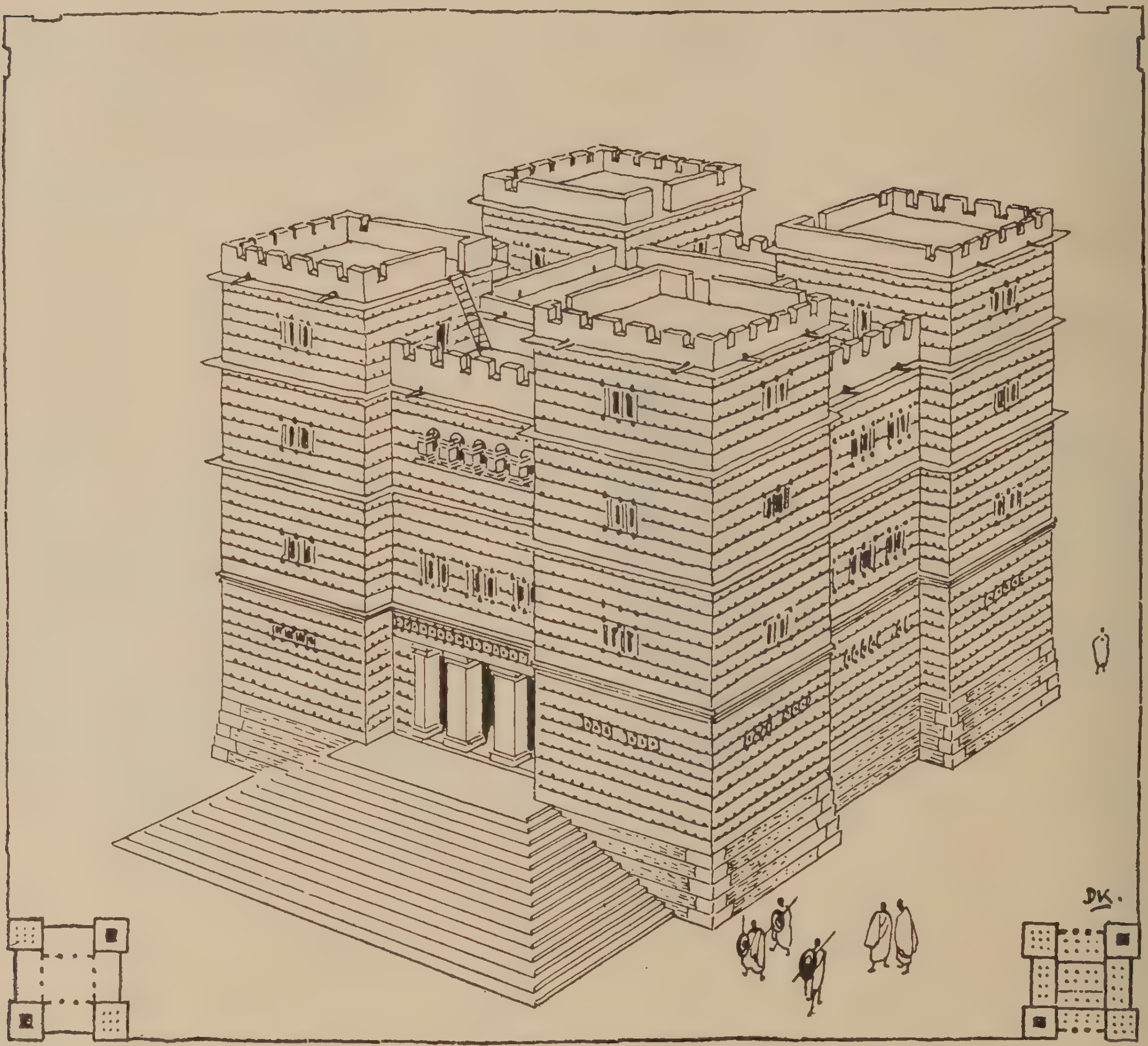

FIG. 14. Enda Mikael. Reconstruction (from *D.A.E.*)

Krencker[2] gives a reconstruction of the palace of Enda Mikael at Aksum in which the corner-elements are shown carried up into towers (fig. 14). This restoration was purely tentative for Krencker had no certain evidence of such towers, and was not aware that any existing building possessed them. In the description of Enda Mikael and the discussion of superstructures he cautiously refers to 'corner-towers (?)' with a query. The reasoning that led him to believe in their existence is not explicitly stated, but he was probably influenced chiefly by consideration of the great palace of Taakha Mariam at Aksum whose foundations the expedition had excavated.[1] In this complex plan the broader, projecting elements (whether at the corners of larger buildings or not) with their invariable traces of stairways, are very suggestive of towers. However that may be, Krencker's instinct in such matters was apparently a sure guide. Here at Imraha, which in so many respects follows Aksumite traditions, we see a living example of these corner-towers whose existence he had correctly surmised.

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[1] According to some accounts, he reigned from 1110 to 1150.

[2] *D.A.E.*, pp. 108, 119–21.

One other contribution to an understanding of the Aksumite style is made by a subsidiary building, equal to the church in size, which stands in the same cave at Imraha.[2] This building is reputed to have been used by Imrahanna Kristos himself as a place of residence. It may well date from the same period as the church, but whether this is so or not, its ceiling is a fine example of a very simple, early type. I shall not describe the plan or structure of this ceiling, which are shown diagrammatically in fig. 13. I think it may be assumed with confidence that this was the type—or one of the types—of ceiling used in the upper stories of the old Aksumite palaces.

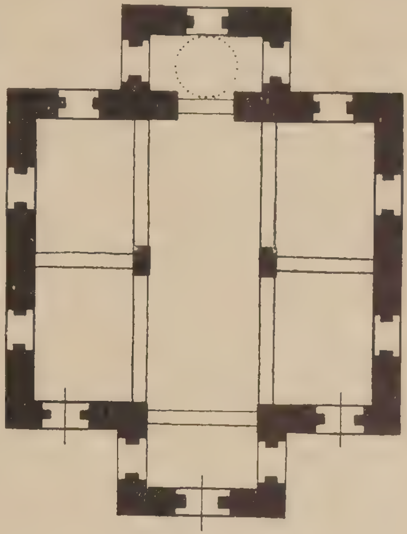
FIG. 15. Jammadu Mariam. Plan

6. *Jammadu Mariam* (pl. IV)

This little church, standing in its cave among the mountains of eastern Lasta, is our final example of the built-up style and the least known of all. It was apparently visited by that intrepid traveller, Father Alvarez, before he reached Imraha in 1520, but one cannot be quite certain of this identification, for the names he mentions differ from those now in use.[3] An English seaman, Nathaniel Pearce, who was wandering in Abyssinia in the early nineteenth century, went there in 1807.[4] I know of no other visits by foreigners, and though a few Italians must have passed that way during the occupation Monti della Corte appears to have overlooked the church. My own acquaintance with it was due to the helpfulness of Fitaurari Berhane Maskal, Governor of Lasta, who takes a great interest in the old churches of his district.

The church (as Alvarez observed) is cruciform in plan, this form having been arrived at, apparently, by the suppression of the four corner-elements which form the towers at Imraha (see plan, fig. 15). If the builders were thinking in terms of corner-towers, it would certainly have been a great relief and simplification, in such a site, to omit them altogether. The walls are built in dressed red stone and only a single wooden course—just below window-level—is incorporated as a concession to tradition. The style had thus moved far from the standard set at Debra Damo, and it is clear that this church is considerably later than the others we have considered. It may well be later than the rock-churches, but this does not detract from its value as a representative—doubtless typical of many others now lost—of what was probably an early variety of built-up church. It is suggested below that the cruciform church of St. George at Lalibela is copied from such a type.

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[1] *D.A.E.*, pp. 112–21.

[2] For plan see Monti della Corte, p. 156.

[3] Alvarez, p. 118.

[4] Salt, *A Voyage to Abyssinia and Travels in the Interior of that Country*, etc., London, 1814, p. 302.

The window- and door-frames at Jammadu Mariam are wooden and of the approved pattern. Above the windows the wall-surface is covered with brightly coloured paintings on cloth (not ancient). The walls have no upper tier of windows, except very small ones at the east and west ends, and there is no question of an upper story. The upper nave-wall (with small windows) and its roof, also the dome over the sanctuary, rise conspicuously above the general roof-level.

The interior, which unfortunately I was only able to inspect through the windows, shows a curious secondary simplification. Possibly expert builders could no longer be found at the time the church was built. No arches are attempted, and we see a reversion to simple lintel-beams supported on wooden columns. There is a simple wooden frieze of the Debra Damo type, low over the lintels, and small nave-windows above it. No carved ornament can be seen. Here then is a church of a much later period (I should say) than Imraha, a period probably of architectural decline. It is much simplified: perhaps degenerate. But it is none the less very attractive, shining like a jewel against the dark background of the cave.

D. THE ROCK-HEWN CHURCHES

These strange and wonderful churches, hewn from the solid rock, long remained the only Ethiopian antiquities of the Christian period known to the outside world. Their built-up predecessors, which we have already described, escaped the notice of archaeologists until the present century.

Lalibela is the undisputed headquarters of this school of architecture, and all the finest rock-churches are there together, a group which must remain for all time one of the wonders of the world. But even Lalibela, in its remoteness, has rarely been visited by Europeans. The first was Alvarez, the only Portuguese who undoubtedly went there, first in 1520 and a second time, it seems, later.[1] Nearly 350 years passed before the German explorer Rohlfs, who accompanied Napier's army in 1867–8, found himself at Lalibela by accident and so 're-discovered' it.[2] He alone was permitted by Sir Robert Napier to leave the established route of the expedition, a not unnatural occasion for grievance among some British members of the party. There followed the Frenchmen Raffray and Simon in 1881; the American Harlan; de Coppet, French Minister in Addis Ababa; and, in 1925, Rosita Forbes. Soon after that,

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[1] Alvarez, pp. 122–30. The writings of Alvarez make fascinating reading. He has been quoted by most writers on Ethiopia and I have refrained only with regret from quoting him again in this paper.

[2] Rohlfs, *Land und Volk in Afrika*, Bremen, 1870.

Lalibela became a station of the Sudan Interior Mission. During the Italian occupation there must have been a number of visitors to Lalibela, where some troops were stationed, but it was not until 1939 that Monti della Corte carried out an archaeological survey there.

Few of these visitors contributed much useful information on the architecture. The first to do so since Alvarez was Raffray[1] who, though an amateur, measured most of the churches and made some good drawings which until recent years were the only pictorial record of Lalibela available. It has already been observed above that Monti della Corte's new book is valuable only as a source of illustrative material. It contains some fine photographs and an excellent set of plans and sections by the author's companion, described as the 'indefatigable Centurion Zacchia'. The text shows little understanding of the subject, repeats old misconceptions, and is further marred by cheap expressions of political and racial prejudice, while various errors shake one's faith in the whole work.[2] Dr. Findlay, a recent visitor to Lalibela, has compiled a useful summary of information from the older records with descriptions of the churches.[3]

It is unnecessary here to recapitulate the legendary and historical matter relating to Lalibela, which is summarized by Monti della Corte and by Findlay. This material makes good reading, but is not essential to my theme. It need only be said that the original group of churches were apparently excavated in the early thirteenth century under King Lalibela (after whom the place is named)—a very remarkable man, venerated as a saint in Ethiopia, of whom too little is known. It is recorded that artisans from Egypt took a leading part in the work, though, as will be seen, they were only permitted to copy local Ethiopian models. These expert stone-hewers were probably Christian refugees fleeing from persecution in Egypt; and as such persecution became particularly intense during the period of the crusades, these may have promoted, indirectly, the excavation of the Lalibela churches.

How the idea arose of excavating complete churches from the solid rock remains uncertain. According to the legend it was God who gave instructions to Lalibela in his dreams, telling him in every detail the form that each church should take. It is said that the Agaus of Lasta used to worship in caves, but it is a long step from a cave, perhaps enlarged artificially, to the fully-developed rock-church, shaped both inside and out. In Egypt there were no such monuments, though the temples of Abu Simbel are a near approach, having a fully elaborated interior and one external façade. There are rock-cut tombs in many parts of western Asia, sometimes showing one, but never more than one, sculptured face outside. Those of Petra are well known, and a similar series in north-western Arabia were the nearest rock-hewn monuments to Ethiopia. In India there are remarkable rock-excavations of various periods, and it is here that the only real parallel to Lalibela can be found—the Hindu temples of the Ellora school. These are shaped both outside and inside and are extremely elaborate; as at Lalibela, their various features reproduce wooden methods of construction. All these belong to earlier periods than the Ethiopian rock-hewn churches, but it is not clear whether Lalibela had any knowledge of them.

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[1] Raffray, *Les Églises Monolithes de la Ville de Lalibela* (*Abyssinie*), Paris, 1882.

[2] At p. 30, after referring in contemptuous terms to Ethiopia as 'the protégée of London and Geneva, overthrown by the renewed power of Rome', the author proceeds: 'In fact, as at first in Aksum and Adulis, as later on at Gondar, wherever, in a word, we encounter something great, beautiful, or lasting in Ethiopia, we have to do, always and solely, with the expression of a genius and a technique which are foreign, not native.' This is apropos of Lalibela. Evidently the author was blinded by prejudice, for even his own text, defective though it is, provides evidence to confute so false a view.

The author claims that he and the other members of his party were accorded ecclesiastical rank by the chief priest at Lalibela and thus enabled to enter the sanctuaries of the churches. The priests would never willingly have allowed what they could only regard as a desecration, and must have submitted under pressure.

One gathers also that the Italian party despoiled the churches of some of their valuables. This amply explains the virtual impossibility, to-day, of persuading the priests to show their remaining treasures.

Among errors in this volume the most surprising is the mistaken identification of three effigies of saints from the Golgotha chapel (pls. XIV and XV). The accepted name of each is inscribed in Ghiz characters which are legible on the photographs themselves.

[3] Findlay, 'The Monolithic Churches of Lalibela in Ethiopia', *Bulletin de la Société d'Archéologie Copte*, vol. IX, 1943. His chapter II must be used with caution as it contains many errors.

The rock-churches, being almost indestructible, are to-day far more numerous than their built-up predecessors—the converse, of course, of the situation in medieval times. On the sketch-map they cannot be shown individually, but a general idea of their distribution is given. Besides the principal group, centred on Lalibela (of which Sokota may be considered an outlying member), there is a northern group in Tigré and a southern in Shoa. The latter is an interesting confirmation of local traditions and records, which indicate the existence of Christian communities in Shoa in the thirteenth and fourteenth centuries. Fuller information may in time extend the known range of these churches to other parts of the northern highlands.

I have myself seen ten rock-churches besides the eleven at Lalibela. I shall not attempt to describe them all in detail; it will be more useful to concentrate on those (especially the more finished examples at Lalibela) which most clearly illustrate the theme of this paper. I shall also indulge in some interesting (if risky) speculations, working back from rock-hewn derivatives to built-up prototypes now lost.

1. *Lalibela* (pls. VI–VIII)

I cannot embark on a full description of this fantastic place, a world in itself of excavated rock. Nor is it possible to describe it by a mere enumeration of the churches, various though they are: the whole is more than the sum of its parts. The site is riddled from end to end with trenches and passages dividing the rock, with branching crypts and caves and galleries, and mysterious subterranean passages connecting one church with another. The churches, disposed in various groups and at various levels in confusing disorder, are not all easy to find and the visitor learns only slowly to feel at home among them.[1]

All who come to Lalibela must marvel at the mind that conceived so grandiose a plan; at the endless patient labour that carried it through to completion. Confronted with these churches Grañ himself, the ruthless Moslem conqueror, is said to have turned away, abashed and humbled. Yet it must be said that to the devotee of truthfulness in art they are not satisfying. Everything here is false, every detail unconstructive. For greater aesthetic pleasure we must go to a built-up church where all we see is genuine—to Imraha, a day's journey away.

These Lalibela churches form two main groups 300 yards apart, while one of them

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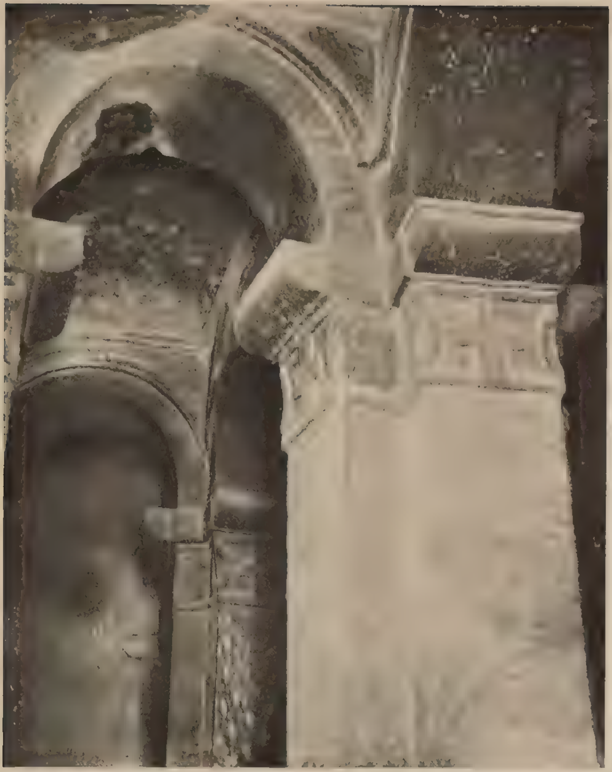
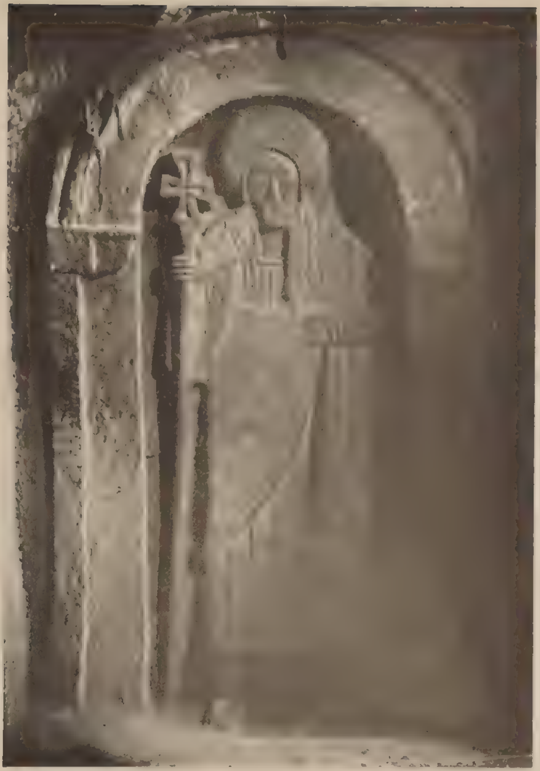
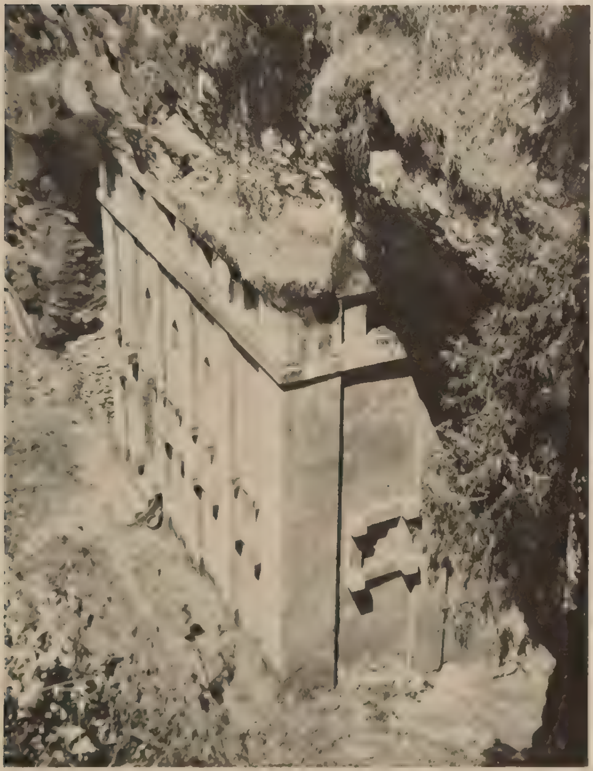
[1] A good general idea of the place is to be gained from Monti della Corte's *Lalibela*.



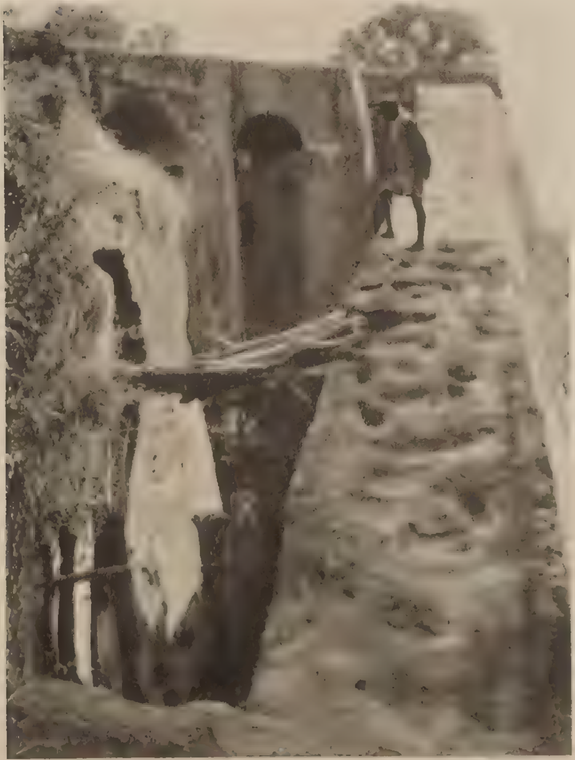
a. Lalibela. Mikael: interior, looking west



b. Lalibela. Relief of St. Cyriacus in Golgotha chapel



c. Lalibela. Abba Libanos: south façade at foot of cliff



d. Lalibela. Gabriel: view into the triangular court

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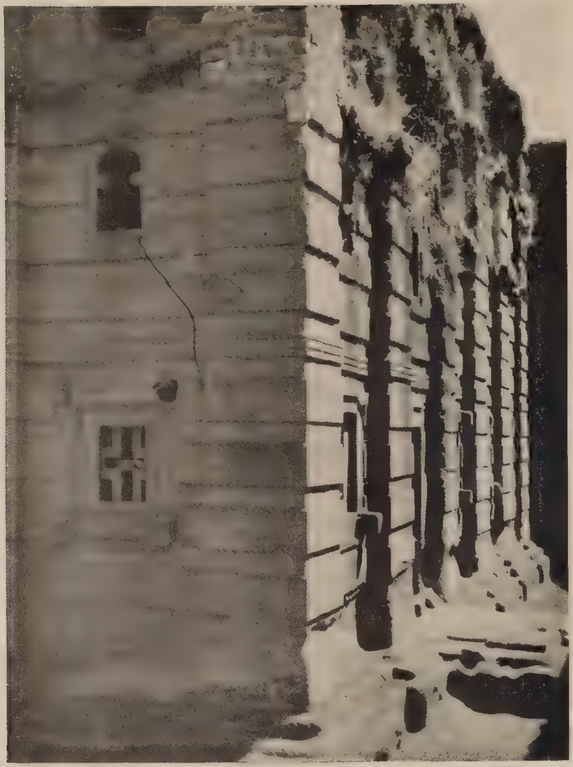
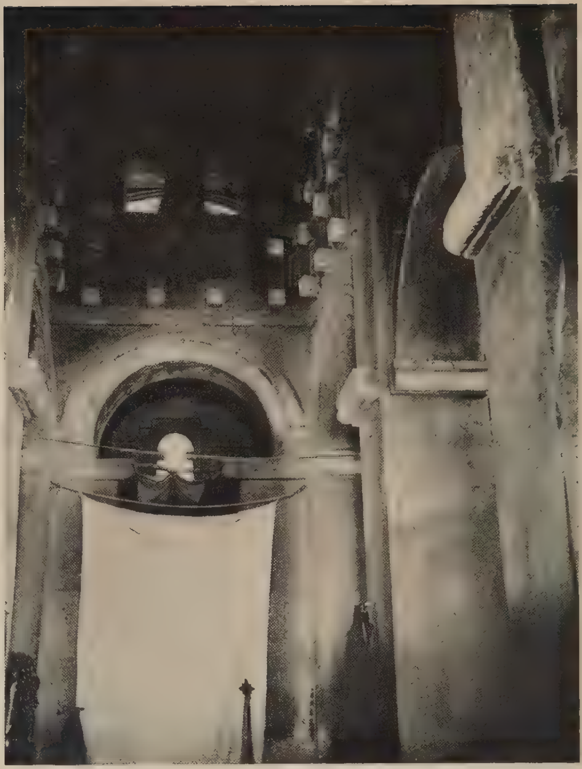
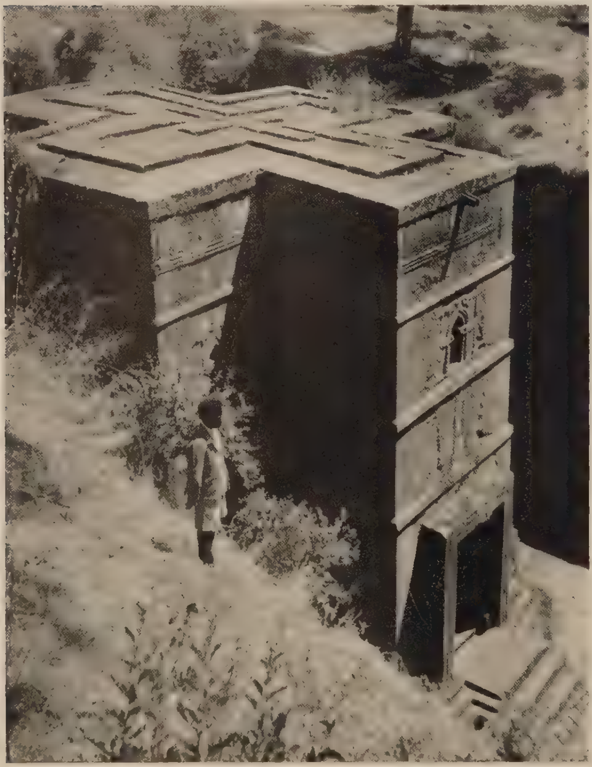
PLATE VIII



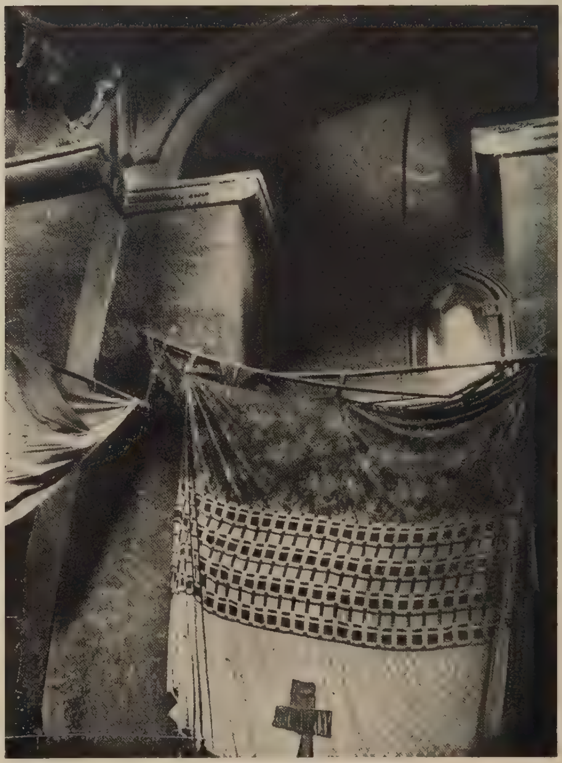
a. Lalibela. Amanuel: view from south-west



b. Lalibela. Amanuel: nave, looking east



c. Lalibela. Ghiorghis: view from north-west



d. Lalibela. Ghiorghis: interior, looking east

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—St. George—stands by itself. They are all excavated in a reddish volcanic tuff and, for the most part, are wonderfully preserved. The principal churches stand fully isolated, rising in the form of great blocks of rock, sculptured on all sides to resemble a normal building, from the deep courts which have been excavated around them.

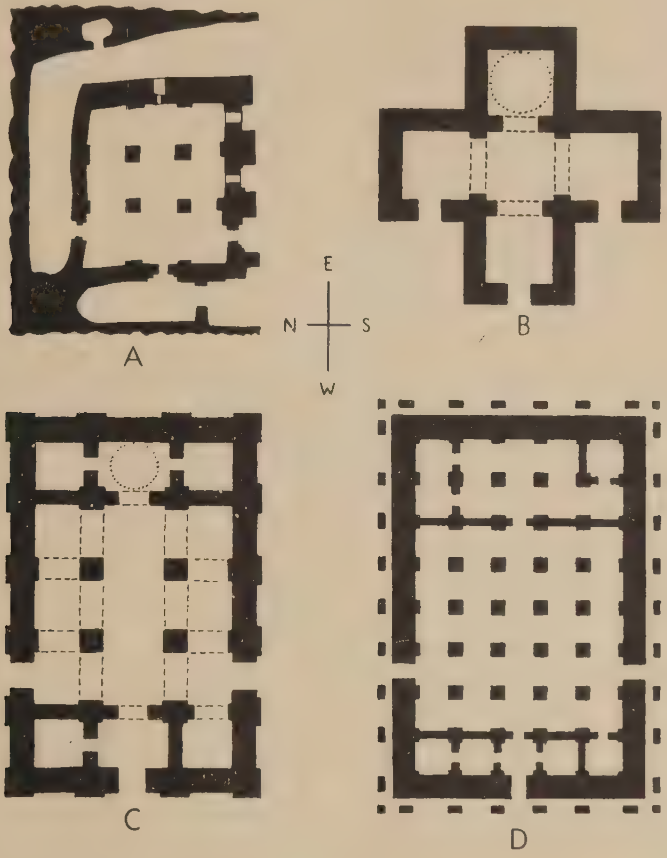

Fig. 16. Rock-church plans
A. Bilbala Ghiorghis. B. Lalibela Ghiorghis. C. Lalibela Amanuel.
D. Lalibela Medhane Alem

Such are Medhane Alem and Mariam in group A, Amanuel in group B, and Ghiorghis. Of 'semi-detached' examples Abba Libanos (group B) has all four walls isolated, but its roof merges into the cliff above (pl. VII *c*). Among the remaining churches there are various degrees of attachment to the rock: Merkurios and Gabriel (group B) stand to some extent free; Maskal and Denaghel (group A) are excavated almost wholly within the rock-rampart of the Mariam court; Mikael and Golgotha (group A) are subterranean, but the former has three exposed façades, the latter one.

I propose now to describe the major churches in turn, concentrating first upon those three (Mariam, Amanuel, Abba Libanos) which belong to the direct tradition of Debra Damo and Imraha. Something must also be said in passing of Mikael and Golgotha which are of special interest, though hardly affecting the purely architectural theme of this paper. We shall pass lastly to Medhane Alem and Ghiorghis which do not closely follow any surviving prototype, and speculate as to their origins.

The Church of Emmanuel (*Amanuel*) (pl. VIII and figs. 16 and 17. Dimensions: 17·5×11·5 m. by 11 m. high). This is a tall church somewhat cramped in a very narrow, deep court approached through a tunnel. It is more elaborate externally than any other church at Lalibela, for the walls are indented according to the old Aksumite tradition, and also carved in courses, alternately recessed and projecting, which represent timber and plastered-stone layers (without binders) as at Imraha. The indentations are so numerous that the projecting portions of the wall which still remain are reduced almost to the condition of pilasters, which correspond in position with the internal piers.

Inside we have a lofty and fully evolved representative of the Imraha style as it would have been used in an unhampered site. There are five bays, and the usual double row of piers separate nave from aisles. They carry a longitudinal arcade on either side of the nave and transverse arches across the aisles. A sanctuary-arch at the east is balanced by a similar arch at the west end of the nave. Lofts surmount the western vestibules and the aisles, but not the sanctuary, over which there is a high dome (visible in pl. VIII *b*). The nave, occupying the three middle bays, is high and its roof takes the form of a barrel-vault. The upper nave-walls have a handsome frieze (of the Debra Damo type) which is also carried round the east and west ends of the nave above the arches. Over the frieze are windows, a northern and southern range opening into the lofts over the aisles, an eastern pair into the sanctuary. The walls are carved into 'stone and wood' courses inside as well as out. Every feature here is derived from the style of Debra Damo and Imraha.

The Church of St. Mary (*Mariam*) (pl. VI. Dimensions: 15×11 m. by 10 m. high). This, the most highly revered of the Lalibela churches, is, by contrast with Amanuel, singularly plain outside. It has, however, a variety of window-fillings some of which may be derived directly from Imraha (fig. 19). It also possesses the unusual feature of three projecting porches which, though originally monolithic, have had to be largely patched up in recent times. The outside of the church is spoilt by a layer of plaster applied in modern times and now scaling off, and a most unnecessary cross has been added on the western gable.

The interior is laid out very much as in Amanuel and there are lofts over the aisles, but a tall median pillar has been left which supports the centre of the nave 'vault'. The frieze, unlike that of Amanuel, incorporates windows opening into the lofts; it much resembles the Imraha frieze and like it makes the full circuit of the nave (fig. 25). Mariam is the only rock-church, either at Lalibela or elsewhere, which displays elaborate carved detail inside, and there are unusual remains of early frescoes on the ceiling and upper walls. All the capitals and many of the arches are carved (the remainder being painted). There are also carved designs on some of the internal piers, and there is one in the western porch. All the ceiling-compartments of the aisles are similarly decorated (see fig. 24 for arch-designs and a wooden prototype; also pl. VI *d*[1]). The capitals are a duplicated type (see p. 38).

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[1] Good photographs in Monti della Corte, pls. VIII, IX, and X.

The Churches of St. Michael (Mikael) and Golgotha (pl. vii. Dimensions: E.–W. length of both churches 11 m. (36 ft.)). Leaving the Mariam church in a westerly direction we can pass through a pair of arches in the rock-rampart of the court. These lead into a kind of open corridor, and we are here standing as it were on the roofs of the churches of Mikael and Golgotha, which can only be approached from this point by a long détour. These churches really form a single complex subterranean excavation.

Mikael is a normal, three-aisled church of five bays, with piers of cruciform section which have double capitals as at Mariam (pl. vii *a*). From here we enter directly the small church or chapel of Golgotha which lies alongside, and is divided into two aisles by a row of three median columns. Here we find four very dignified figures of saints in bold relief, larger than life, disposed in niches round the walls; two of them are unfortunately mutilated (pl. vii *b*). There is also a carved Deposition scene, in which a prostrate Christ is shown watched over by an angel.[1] Lalibela himself is supposed to be buried in a vault under the floor of this chapel.

A narrow opening gives access from the Golgotha chapel to a very remarkable, isolated sanctuary containing three stone altars. The central altar has the symbols of the evangelists carved in sunken panels on its four faces, with crosses above. The lateral altars are similar but smaller, with crosses over empty panels.[2] Only the Italians, who contrived to enter all the holy places, have seen this sanctuary, and I was myself unaware of its existence.[3] I can throw no light on the stylistic affinities of the carvings mentioned, a subject which requires investigation.

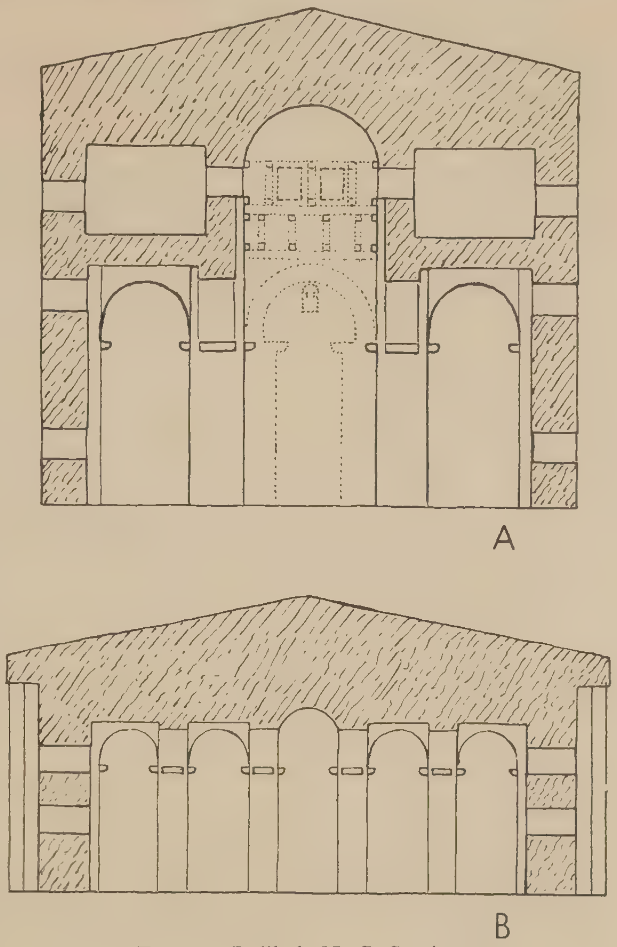

Fig. 17. Lalibela N.–S. Sections
A. Amanuel. B. Medhane Alem

The Church of Abba Libanos (pl. vii. Dimensions: 9 × 7 m. by 7 m. high). The third of these churches which owes its character to the Debra Damo tradition. Its plan resembles that of Amanuel on a much reduced scale. Lofts are wanting. In this church we see a rock-hewn copy of a building slightly more evolved than Debra Damo, but not yet approaching the point reached at Imraha—an intermediate stage which does not survive in the original material. The nave, occupying as usual the three middle bays, is not bounded by round arches but by flat lintels as at Debra Damo.[1] The columns are given cubical heads of Aksumite type (as at Debra Damo) but the lintels do not rest directly on these: a double bracket, copied from a wooden form, is interpolated (see p. 38 and fig. 23 B). There are two arches in this church, a sanctuary-arch at the eastern end of the nave and a corresponding one at the western end; this marks a slight advance on the single arch of Debra Damo.

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[1] Monti della Corte, pls. xiv and xv, but see note, p. 23. I did not see this Deposition myself. The Italians observed also some smaller figures in relief, making nine in all.

[2] The form of these altars is apparently copied from that of the small portable altars often preserved in Ethiopian churches.

[3] Monti della Corte, pp. 58–60 and pl. xvi.

The Church of the Saviour of the World (*Medhane Alem*) (pl. VI and figs. 16 and 17. Dimensions: 33·5 × 23·5 m. by 11 m. high). This is the largest of all the rock-churches, 110 ft. long and distinguished by being five-aisled. It was formerly surrounded by a colonnade of 34 external columns supporting the projecting eaves of the roof; these were too slender for stability and most of them have fallen, though they remain complete at the eastern end (pl. VI *a*). The gabled roof is adorned with a recumbent blind arcade on either side.

The interior presents a forest of columns, for there are four rows of seven each—twenty-eight in all, a great number for a rock-church. All have plain bracket-capitals and carry arches, there being no lintels. The central aisle or nave rises to a continuous 'barrel-vault', the bays being marked by ribs only. It is, however, little higher than the aisles and there is no frieze. Lofts likewise are wanting. The four lateral aisles are crossed by transverse arches which cut the ceilings into flat rectangular compartments. There is no ornamental detail. This is a very impressive interior, and by far the most extensive possessed by any rock-church (pl. VI *b*).

Although the details of Medhane Alem—doors, windows, and bracket-capitals—derive from the school of Debra Damo and Imraha, its general layout has no counterpart among surviving built-up churches, which include no five-aisled example, nor any with external columns. However, in its great size and complex plan Medhane Alem may be regarded as the most ambitious church at Lalibela, and this fact, it seems to me, gives a clue to the origin of its design. The most ambitious of early Ethiopian churches was undoubtedly the original St. Mary of Zion at Aksum, and it is almost certain that the excavators of Lalibela would have copied it, just as they copied the other early church plans. Medhane Alem is, I believe, their attempt at a copy. How faithful a copy they achieved one cannot now be sure, though old Ethiopian records, of which many remain unpublished, may eventually throw light on the question. Unfortunately the account of the Aksum church given by Alvarez, who saw it still standing before its destruction by the Moslem invaders, helps little, for though an admirable observer of human affairs he was quite unable to observe or describe buildings. He does, however, make it plain that the church was five-aisled, an important point in favour of this theory.[2] The different translations of Alvarez do not entirely agree, but the English translation does not exclude the possibility that the church had an outer colonnade, in fact it might be held to convey that meaning.

The Aksum chronicle (quoted by Krencker[3]) gives a mere list of elements of the building with their numbers, but this provides some useful data. It is surely very suggestive that the number of columns at St. Mary of Zion corresponded exactly with the number at Medhane Alem (reckoning the internal and external ones together). The comparison may be made thus:

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[1] Monti della Corte, pl. XX.

[2] Alvarez, p. 81.

[3] *D.A.E.*, pp. 136–40.

St. Mary of Zion		*Medhane Alem*	
Stone columns	32	Internal columns	28
Masonry columns	30	External columns	34
	62		62

I conjecture that St. Mary of Zion was a five-aisled basilica of nine bays (one more than Medhane Alem) which would give it the thirty-two 'stone' (monolithic) columns mentioned in the chronicle; the remaining thirty masonry columns would have formed an external colonnade. The chronicle mentions ten arches—one presumably at either end of the nave and of each aisle—so that lintels were still in use in other positions. This would have been a quite natural arrangement if St. Mary of Zion was a very early church, like Debra Damo, but they improved upon it at Medhane Alem by the introduction of many additional arches. The '3,815 monkey-heads' also mentioned are about the number to be expected, with normal spacing, in a building of the size envisaged—it was some 200 ft. long.[1]

On the basis of these conclusions it would be easy to put forward a reconstruction of the old Aksum church which would, I think, be a more satisfactory one than that offered by Krencker, while not incompatible with the foundations, supposed to be those of the old church, measured by him.[2] In the hope that further relevant data will come to light, I shall not, for the time being, commit such a restoration to paper. It is interesting, in any event, that the rock-church of Medhane Alem should throw—as I believe—so vivid a light on a vanished building which was the pride of ancient Ethiopia.

The Church of St. George (*Ghiorghis*) (pl. VIII and fig. 16. Dimensions: 12·5 × 12 m. by 12 m. high). In this attractive isolated church we see again a form which lacks a prototype. Unlike any other rock-church it is cruciform from top to bottom and two Greek crosses, one inside the other, adorn its flat roof. Alone among the rock-churches it seems to express that love of tall, tower-like buildings felt by the Aksumite architects. Its plan is very simple and derived, by the omission of the corner-elements, from such a square plan of three aisles and three bays as we see exemplified at Bilbala Ghiorghis (fig. 16 A). It therefore has no free-standing columns and the interior constitutes a single, small, cruciform space; nevertheless it has the usual three doors. The workmanship is excellent and there is a perfect dome over the sanctuary (pl. VIII *d*).

Although not to be regarded strictly speaking as a prototype, the built-up church of Jammadu Mariam (p. 21) provides an interesting comparison with Ghiorghis. Far from being tall, Jammadu Mariam is of necessity very squat, being built in a cave. But it shows the same omission of the corner-elements that we find in Ghiorghis, and so proves that such a plan existed among the early built-up churches.

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[1] The dimensions given in the Chronicle are 125 × 92 'els'. If, as is believed, the el was about ½ m. this gives 62·5 × 46 m. or 206 × 152 ft. The eastern end of the church had two additional chapels which were probably included in the latter measurement. Subtracting $\frac{2}{7}$ of 152 on their account we are left with the basic dimensions of 206 × 108 ft. which accord well enough with the ratio 9 : 5 required in a building of nine bays and five aisles.

[2] *D.A.E.*, pp. 136–40.

Conclusion. We have already seen that nearly all the features of the rock-hewn churches are demonstrably derived from the earlier built-up style. I am doubtful only of the ogee arches and windows which are used in some rock-churches[1] and the figures in the Golgotha chapel. With these possible exceptions the excavators of Lalibela drew their whole inspiration from local models. And it is plain that they strove to imitate every detail they could of the built-up style—whether the early style of Debra Damo or the more evolved version of Imraha. It seems certain that, striving thus after the greatest possible variety, they imitated also as many different types of church as were available. Lalibela, therefore, is really to be regarded as a museum of petrified churches, in which are preserved at least one example of every form and plan of church that formerly existed. Bearing this in mind I have not hesitated to argue back from the rock-churches to those built-up prototypes which no longer stand.

2. *Surroundings of Lalibela* (pls. IX, X)

Lalibela is the headquarters of an area rich in rock-churches, few of which, however, approach those of the central group either in design or execution. I shall mention briefly those that I have myself inspected; there are one or two others in Monti della Corte's book, which, however, does not exhaust this field.[2]

Asheten Mariam is excavated at the top of a cliff about 2,000 ft. above Lalibela. It was extended in modern times, which adds to its interest. There is an annexe, used as a sacristy and priests' quarters, tunnelled into the face of the cliff below. Though a very curious place to explore, it has no special architectural importance.

Bilbala Ghiorghis. One of several rock-churches in the small district of Bilbala north of Lalibela. It is excavated in a hill-top near the village of the same name. Interesting for its very simple, square, four-columned plan (fig. 16 A) which was no doubt used also in the simpler built-up churches. There is but a single exposed façade (pl. IX *c*); the other three sides, though isolated, face gloomy tunnels cut in the rock, to which the church is attached by its roof, and by one corner. The building is incompetently laid out (the arches being thus thrown askew) and its details are badly executed. It has the curious feature, which may be primitive rather than degenerate, of 'capitals' whose constituent brackets lie at different levels.

Bilbala Cherkos. This is an attractive rock-church some five miles north-west of the above. It is surrounded on three sides by an open court, the western wall of which is pierced by an entrance-tunnel. At its eastern end the church is attached to the hillside. The walls are decorated outside with sunken panels containing ogee arches (pl. IX *a*). Inside we find the usual three-aisled arrangement, but the two western bays are broader than the two eastern. The columns and arches, which were freely painted at some remote period, are inaccurately cut and some of the bracket-capitals are badly shaped. An odd feature is the suspended dome west of the sanctuary-arch (pl. IX *b*). There is another dome over the sanctuary itself.[3]

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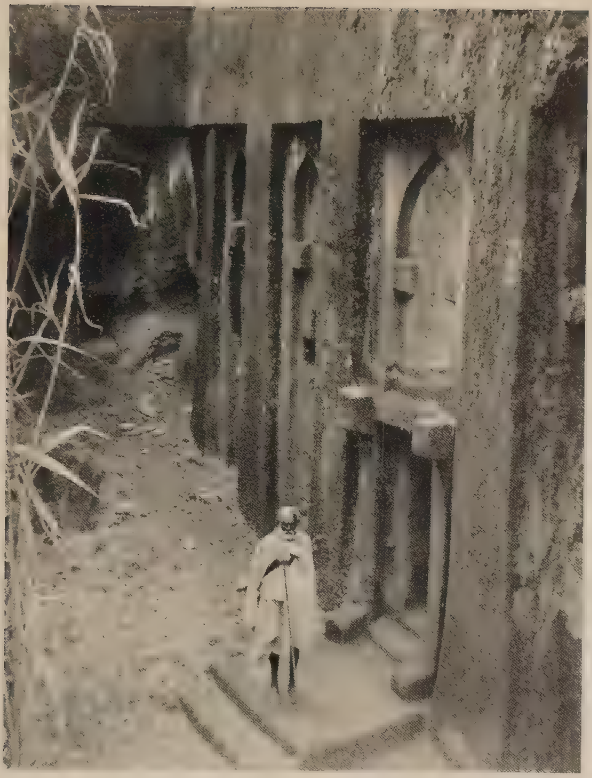
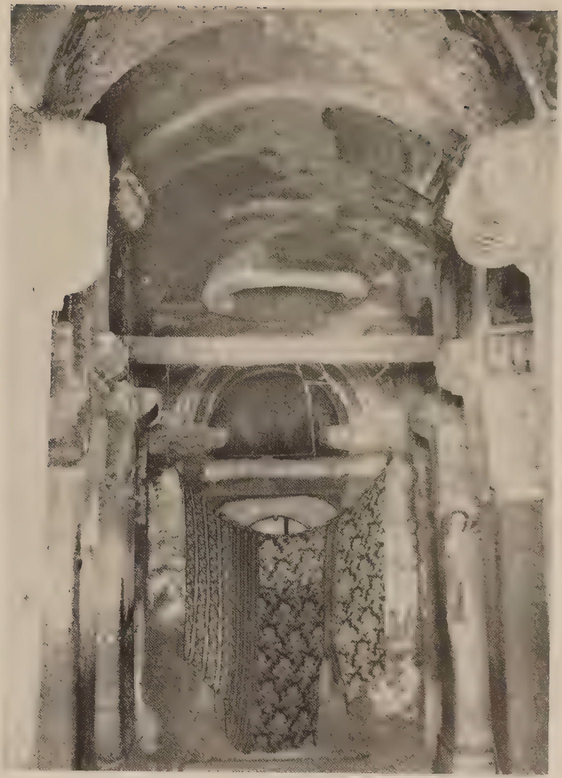
[1] Ogee windows alone: Golgotha; Ghiorghis. Ogee openings with pilasters: Gabriel; Abba Libanos; Bilbala Cherkos.

[2] Monti della Corte, pp. 84–107.

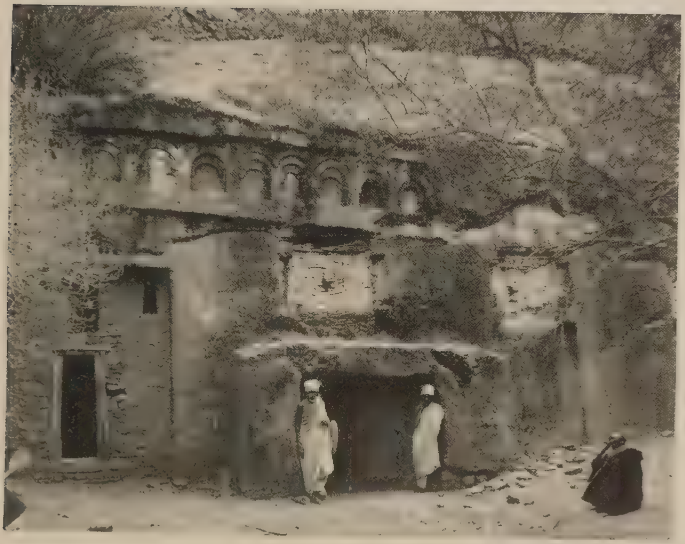
[3] In Monti della Corte a photograph of this same interior is erroneously attributed to Bilbala Ghiorghis.



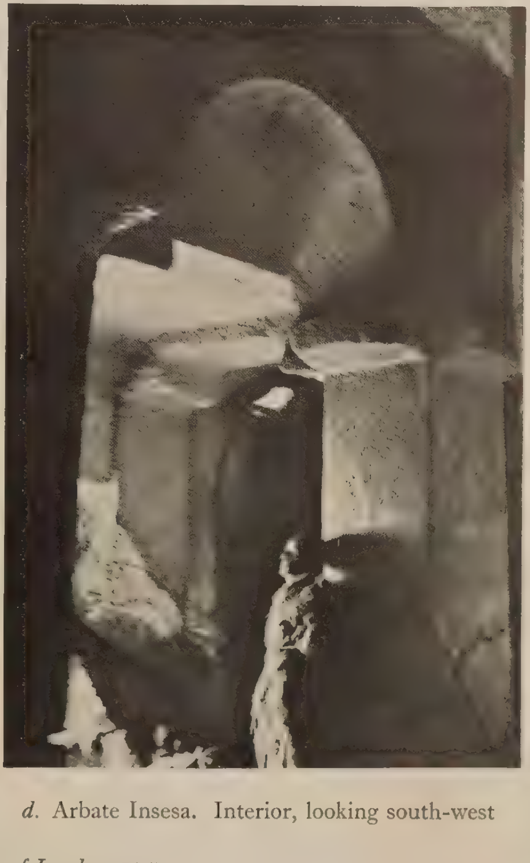
a. Bilbala Cherkos. View from north-west



b. Bilbala Cherkos. Nave, looking east



c. Bilbala Ghiorghis. South façade



d. Arbate Insesa. Interior, looking south-west

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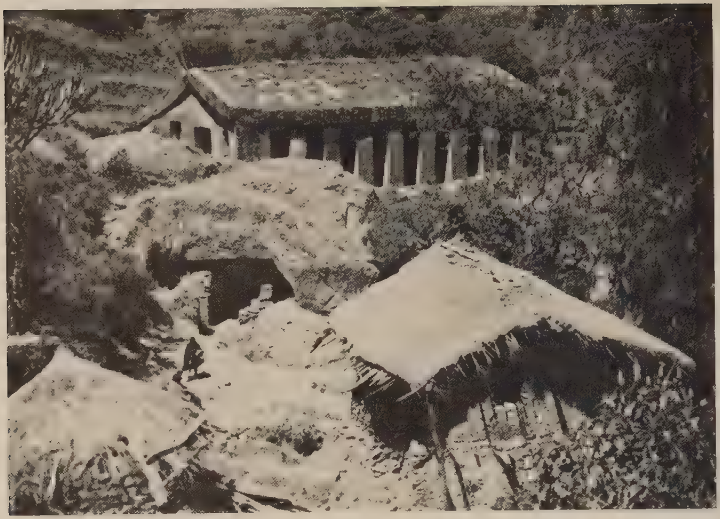
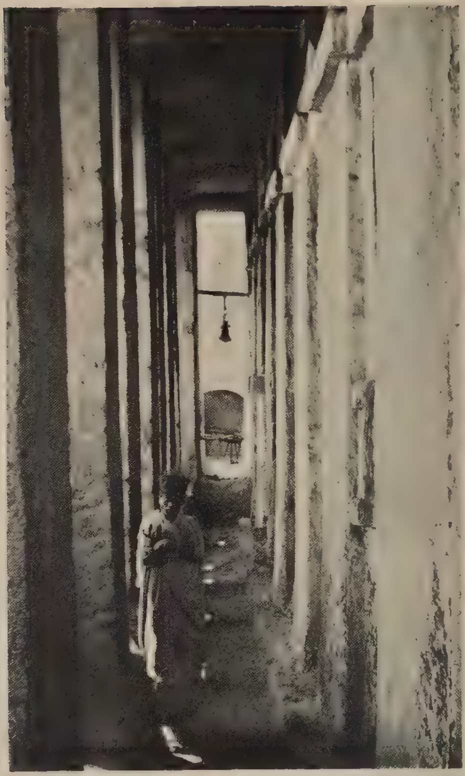
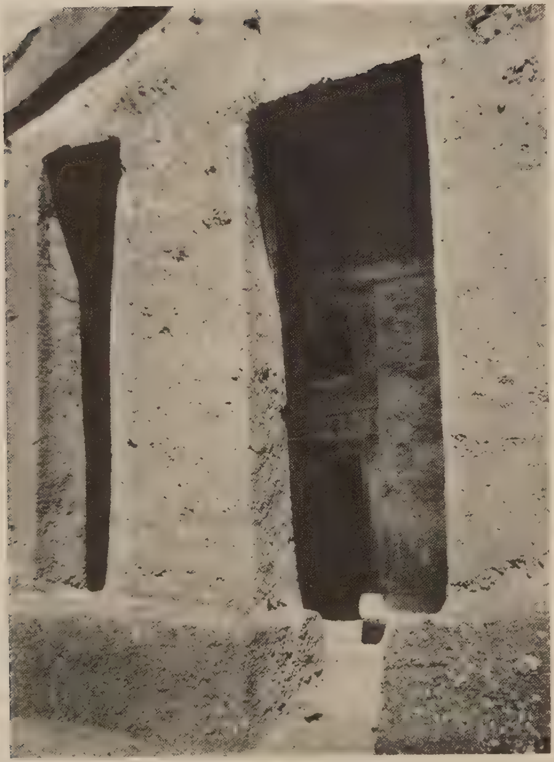


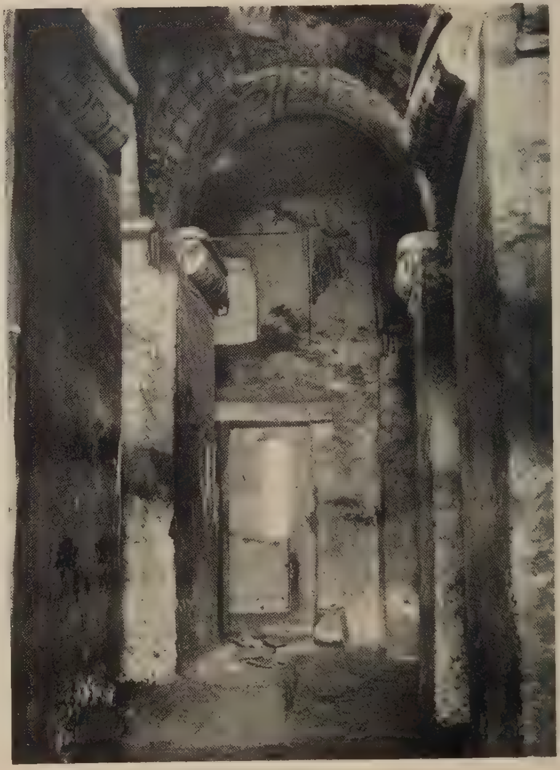
a. Ghenetta Mariam. View from south



b. Ghenetta Mariam. Colonnade



c. Ghenetta Mariam. West front



d. Ghenetta Mariam. Interior, looking from south to north

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Arbate Insesa (The Four Beasts). About three miles east of Bilbala Ghiorghis, on the way to Imraha. Attached to the rock by its north and part of its east side. The plan is a simple square with four columns only, as at Bilbala Ghiorghis, but an eastern opening leads to some additional spaces in the rock used as the sanctuary. There is an attempt to reproduce a short 'barrel-vaulted' nave, while the aisles have flat ceilings as usual. The square columns have rough rectangular bracket-capitals of the simplest possible form (pl. IX*d*).

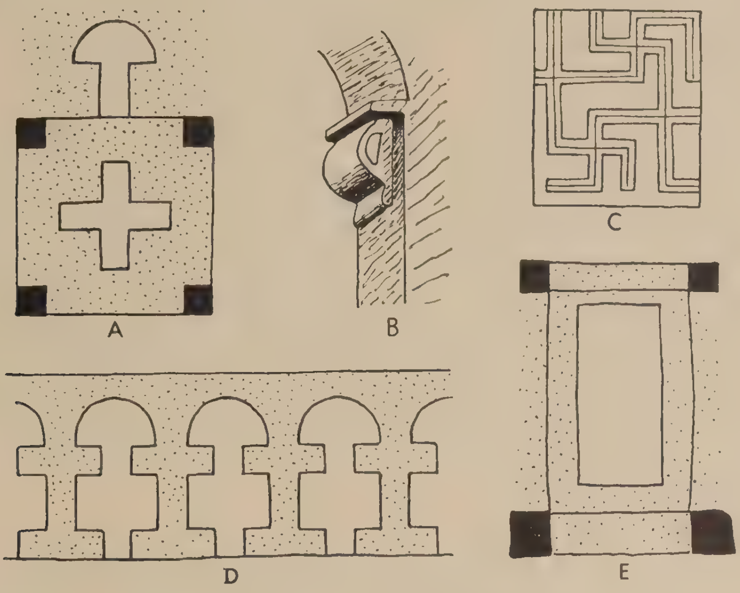

FIG. 18. Ghenetta Mariam. Details

Ghenetta Mariam (Garden of Mary) (pl. X). This charming church, some ten miles east of Lalibela, can easily be visited on the outward or homeward journey. It is the only completely isolated rock-church outside Lalibela. In plan it resembles Amanuel (fig. 16C) but the nave has no frieze and lofts are absent. It has an imposing external colonnade inspired by that of Medhane Alem; here however, the columns are shorter and more massive and for these reasons perfectly preserved. The columns are set well out from the wall and resemble the peristyle of a temple, so that visitors passing along the trail below inevitably remark on the temple-like appearance of the church, which can be seen from afar (pl. X*a*). The blind arcades lying flat on the roof must also have been inspired by Medhane Alem, but here each arch contains a raised cross. Certain details are shown in fig. 18. There is a miniature blind arcade (*D*) over the western door—a very old decorative motif, for there are traces of the same thing on one of the Aksum monoliths.[1] Other details of the building are to be interpreted as degenerate: the window with a small pierced arch attached externally (*A*); the misshapen bracket-capital (*B*); the faulty geometrical panel (*C*); and the door-frame in which the lower projecting blocks have become larger than the upper (*E*).

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[1] *D.A.E.*, pp. 18–19.

Ghenetta Mariam is unquestionably subsequent to Lalibela, the evidence of its style being confirmed by tradition. Bilbala Cherkos, with its ogee arches, must almost certainly be later too. One tends to interpret all the crude features of this group as degenerate, but in the cases of Bibala Ghiorghis and Arbate Insesa they may possibly be primitive. One cannot exclude the possibility that a few essays in rock-excavation were made before the coming of the masters employed at Lalibela.

3. *Sokota. Church of Maskala Kristos* (*The Cross of Christ*) (pl. XI)

This outlying member of the central group differs from those just described in its superior workmanship, which approaches the quality of Lalibela. Like Bilbala Ghiorghis it has all its four sides isolated, but while the south and east façades are exposed to the light of day, those of the west and north merely form the sides of a closed gallery excavated round the church. The plan[1] resembles in principle that of Amanuel (fig. 16 C). There is, however, no tall nave, the central aisle being of the same height as the lateral ones and divided up, like them, into rectangular compartments by means of transverse arches. A minor peculiarity is that the central aisle is closed at the west by means of twin arches instead of a single, broader one (pl. XI *a*). The west façade (pl. XI *c*) is interesting for its door and windows perfectly reproducing the familiar wooden type, and for the 'stepped' plinth imitated from those of early Aksumite buildings.

The ceiling-compartments of this church are notable for their ornamental crosses, etc., in bold relief. At Lalibela only Mariam has this form of decoration. Two examples from Sokota are illustrated in pl. XI *a*, *b*. One has a plain cross, the arms of which curve down at the ends and are supported on brackets. The other, prominent as the central panel of the whole ceiling, exhibits a copy of the kind of ceiling used in the porch of Debra Damo, and so proves the antiquity (doubted by Krencker) of this roofing-technique in Ethiopia. A cross is inserted in its centre.

4. *Northern Group*

There are several rock-churches in Tigré, all probably subsequent to Lalibela, and of rougher workmanship. The last degree of decadence is to be observed in an example at Abbi Addi, where little attempt at planning can be traced and the crude pillars left to support the roof are placed almost at random.

At Woghoro, on the 'great north road' of Ethiopia, there is an interesting example, which, incidentally, is the only rock-church in Ethiopia (apart from the 'Portuguese Ruin' near Addis Ababa) likely to be seen by the casual traveller. The route of Napier's army passed near by in 1867–8 and the church is mentioned in some published accounts of the expedition.[2] It is 'semi-detached', the western end projecting freely while its eastern extremity merges with the rock of the hill-side. The exterior is very plain (pl. XI *d*).

Inside we find unexpected complications, for certain transverse arches in the aisles have their centres supported on additional pillars, somewhat after the fashion of the tall central column in the Mariam church at Lalibela. These pillars look as if they had

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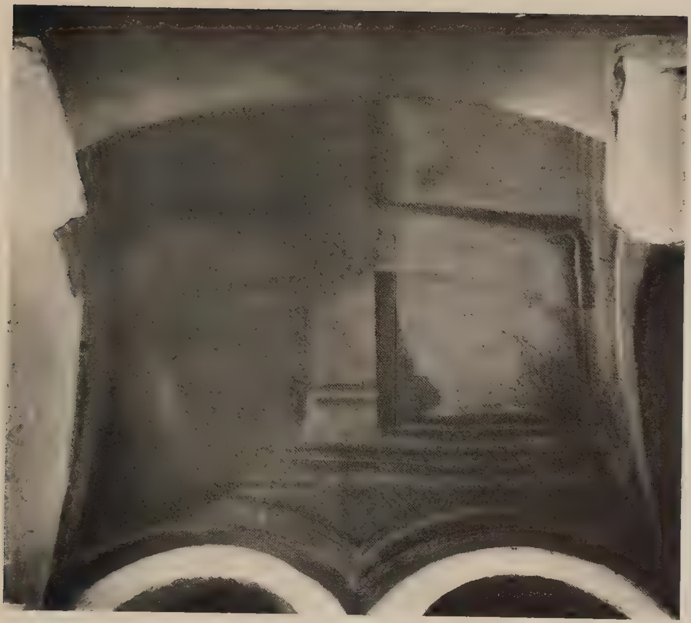
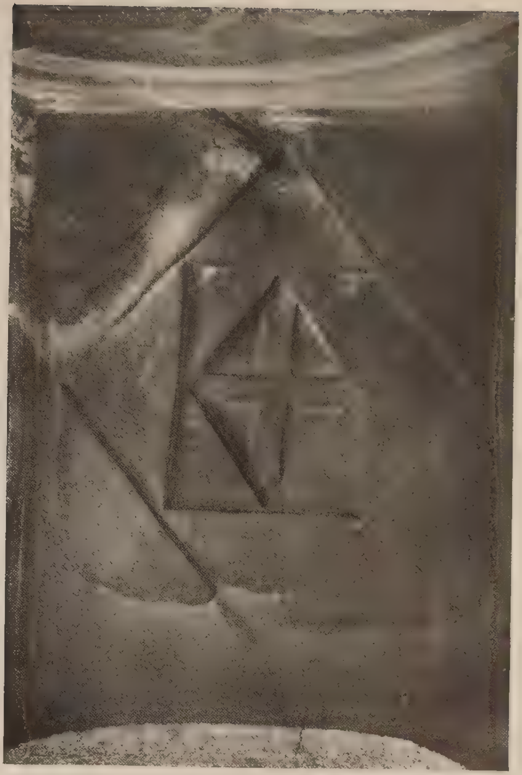
[1] Monti della Corte, p. 173.

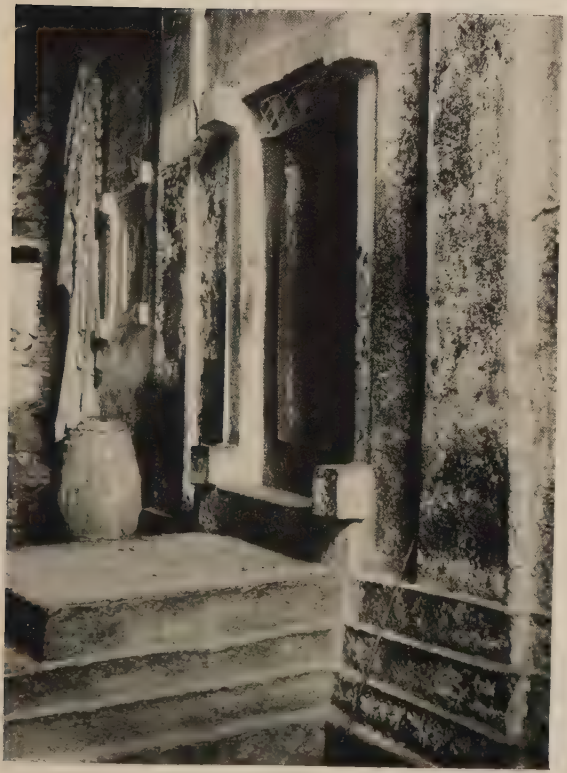
[2] This identification is not quite certain; the church mentioned may be another in the same area.



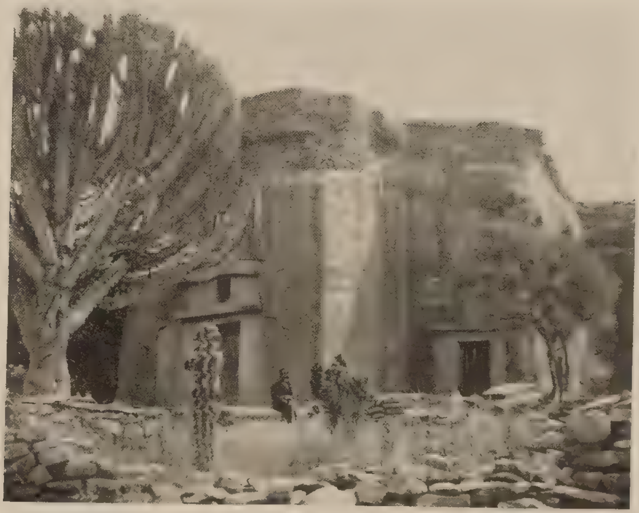
a. Sokota. Ceiling relief, west end of nave



b. Sokota. Central ceiling relief



c. Sokota. Part of west façade



d. Woghoro. View from south-west

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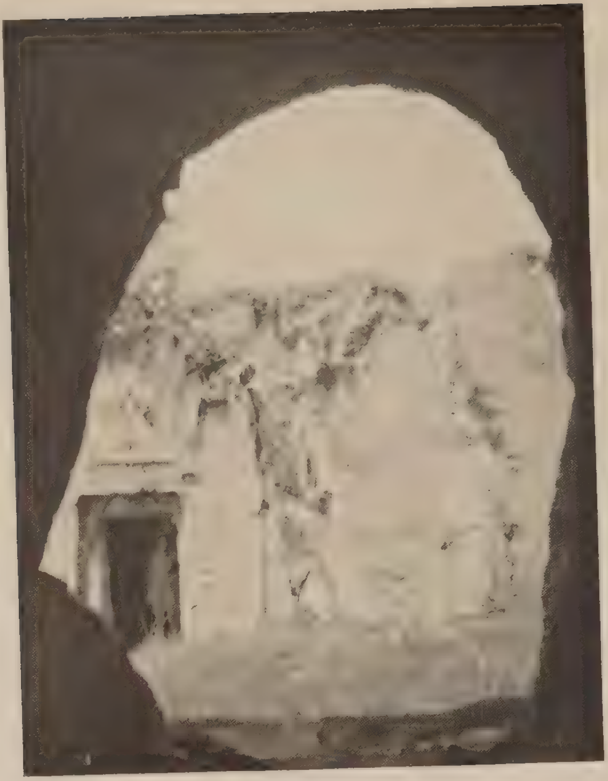
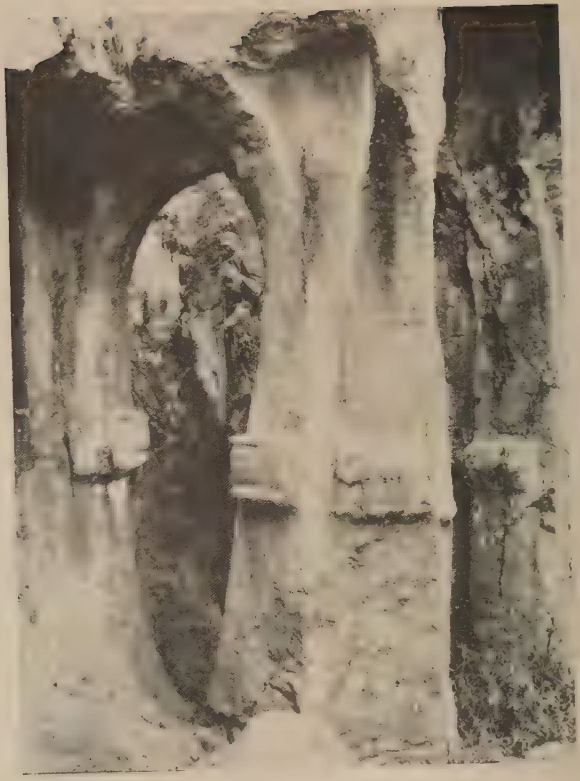
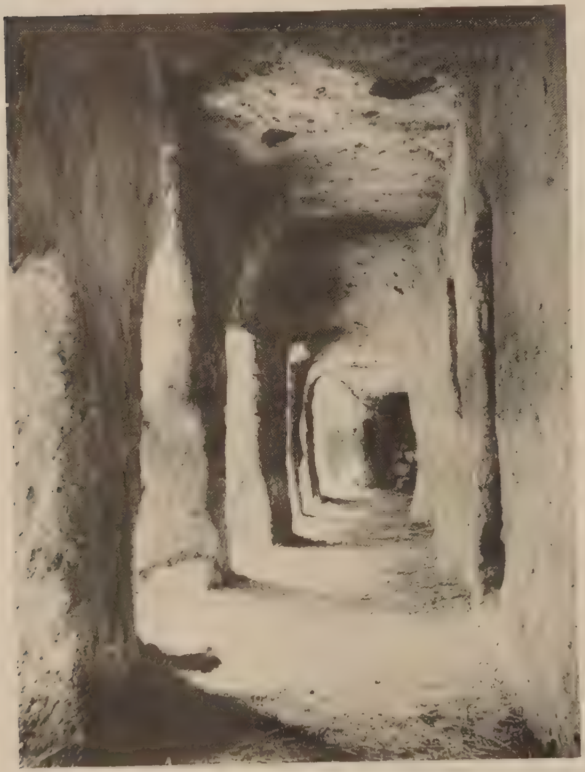
PLATE XII



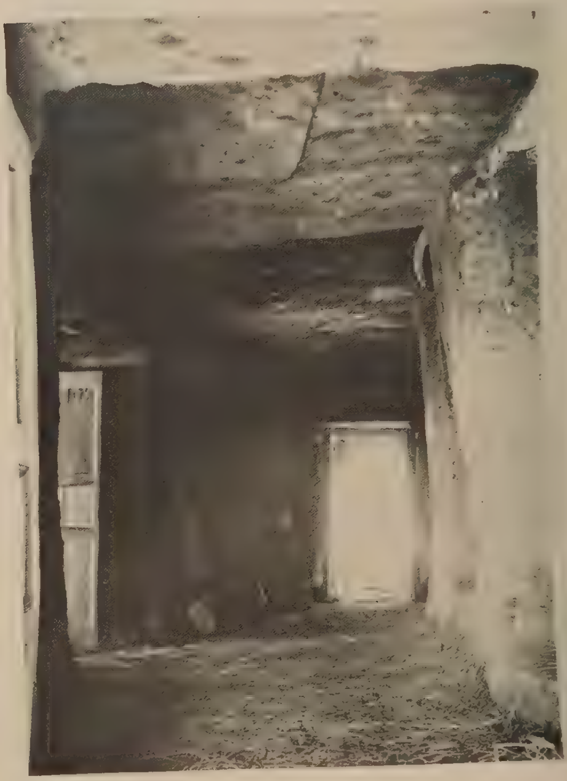
a. Addis Ababa. Yekka Mikael: west front seen from tunnel approach



b. Addis Ababa. Yekka Mikael: portion of interior, incompletely excavated



c. Adadi Mariam. Passage on north side of inner church



d. Adadi Mariam. Western portion of inner church, looking north

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been inserted to prevent the collapse of the arches, whereas of course they always formed part of the same native rock. Probably such inelegant supports had sometimes been inserted in emergency in built-up churches, and were imitated here. There is a frieze of the Debra Damo type carried all round the interior.

An unusual rock-church at Amba Seneti in Tigré has been described by Mordini.[1] It is sunk in the base of a cliff which is smoothed in a summary fashion and serves as the single, western, façade of the church. The interior is chiefly remarkable for the number and variety of its ceiling-reliefs. This district certainly contains several other rock-churches.

5. *Southern Group* (pl. XII)

Until further examples come to light this group consists of only two rock-churches, both near Addis Ababa. The abandoned church known as Yekka Mikael or more familiarly (but incorrectly) as the 'Portuguese Ruin' is well known among residents and visitors in the capital (pl. XII *a*, *b*). It has been described in an unpublished paper (1934) by the Rev. A. F. Matthew.[2] Unfortunately it is a bad example of the style, ambitious in conception—for no less than seven aisles were planned—but poor in execution. It was never completed, having probably begun to collapse while still in course of excavation, and is now in a ruinous condition. Its chief interest lies in the very fact that it was left unfinished, for one can see here how the excavation of these churches was accomplished in stages, beginning at the top of the 'vaults'—a curious reversal of normal building procedure.

Our second example from these parts is the more noteworthy church of Adadi Mariam, about thirty miles south-west of Addis Ababa (pl. XII *c*, *d*). It is somewhat inaccessible (being south of the upper Awash and far from roads) and has very rarely been visited by Europeans. It was found by Father Azaïs in the course of an archaeological tour in 1926, and afterwards described by him.[3] The plan he prints is a very rough diagram but gives a general idea of the layout. The church is subterranean, only a narrow trench being excavated around it. We descend by some stone steps into the broader western section of this trench and thence enter the church through a small door in the rock-wall. We are now in a spacious chamber, limited on one side by the outer wall with its door and windows, and on the other by the inner church which forms a closed central block. This western space continues on either side into a passage (lit by windows opening into the surrounding trench) which passes right round the central block. This latter has the usual three doors and is divided into two spaces, the eastern being the sanctuary. We have here a rock-church unlike any other I know, roughly executed, but illustrating once again the inventiveness of the rock-excavators, who never made two churches alike.

These Shoan rock-churches cannot readily be dated. Probably they are not long posterior to Lalibela, though in theory they might have been excavated any time before the Moslem incursions of the sixteenth century. In the turmoil resulting from this invasion all forms of artistic expression suffered an eclipse, and the indigenous Ethiopian architecture, then already decadent, was finally extinguished.

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[1] Mordini, 'La Chiesa Ipogea di Ucro (Amba Seneiti) nel Tigrai', *Annali dell' Africa Italiana*, 2nd year, no. 2, 1939.

[2] Copies in Cambridge University Library and the British Legation, Addis Ababa.

[3] Azaïs and Chambard, *Cinq années de recherches archéologiques en Éthiopie*, Paris, 1931, p. 166 and pls. XLVIII and XLIX.

E. DISCUSSION OF DETAILS

In this brief concluding section I propose to review more systematically the history, through successive phases of Ethiopian architecture, of certain important details which have already been mentioned from time to time. A little repetition will, I hope, be excused.

1. *Wall Structure*

The typical system of construction (complete with binders) as described under Debra Damo (p. 8) was without doubt characteristic of Aksumite buildings generally and had been introduced from southern Arabia. The antiquity of this technique is proved by the reproduction of its outward forms, accurately copied, on the great pre-Christian stelae at Aksum (fig. 7).

The same system continued to be used unaltered in the earlier Christian churches (though their plans had been modified by the influence of the basilican form). However, it appears that by the twelfth century (as, for example, at Imraha) it became habitual to omit the binders; the longitudinal wall-timbers were retained chiefly, it must be supposed, for their decorative value, for without the binders they cannot have been a source of strength to the wall. It is this binderless variety of walling which was carefully imitated, both inside and out, in the walls of the rock-church of Amanuel at Lalibela (pl. VIII *a*).

2. *Windows and Doors* (figs. 22, 25 and pls. V, XI)

The characteristic window- and door-frames with their projecting corner-pieces (already described at p. 8) are an integral part of the standard method of wall-construction. They are a constant feature in all the built-up churches and were already copied in stone both on the stelae at Aksum and in the subterranean tombs of Kaleb and Gabra Maskal there. This was a precedent for their whole-hearted adoption in the rock-hewn churches of a later epoch. These forms are indeed the hall-mark of the Ethiopian style, and are almost invariably reproduced in the rock-churches, even when (as in some simpler examples) there is no other clear indication of their derivation from built-up models.

Some other forms of window, independent of the rectangular frames inseparable from the genuine wooden technique of the early buildings, appear in the rock-churches. Those which take the form of round arches, single or paired (fig. 22 B, C), could certainly have been inspired by elements existing in the early built-up style. Those, on the other hand, terminating in an ogee (fig. 22 E, F) may be a foreign importation. The scrolls sometimes associated with these ogee windows are sadly inartistic and show a lapse in taste.

3. *Window Fillings* (figs. 19–22)

The lattices of wood or pierced stone which often fill the rectangular frames can be separately considered.

Apart from the special form mentioned in the next paragraph, no window-lattices are preserved at Debra Damo. They must, however, have become very popular later as a great variety occur at Imraha. In fig. 19 the first column (A) shows certain simple forms occurring at Imraha in wood. Column B shows the nearly identical shapes hewn at Lalibela in stone; these were obviously copied from Imraha or from similar buildings which existed at the time. Column C shows a selection of related shapes also occurring in the rock-churches. Two more (from Ghenetta Mariam) are given in fig. 20 A, B. At Imraha there are many more complex lattices, sometimes incorporating elaborately carved panels which it would have been impossible to copy in the rock-churches (pl. V *b*). Some stone lattices inserted in wooden frames have, nevertheless, a somewhat complicated pattern (Imraha and Debra Libanos, pls. III *a* and IV *a*).

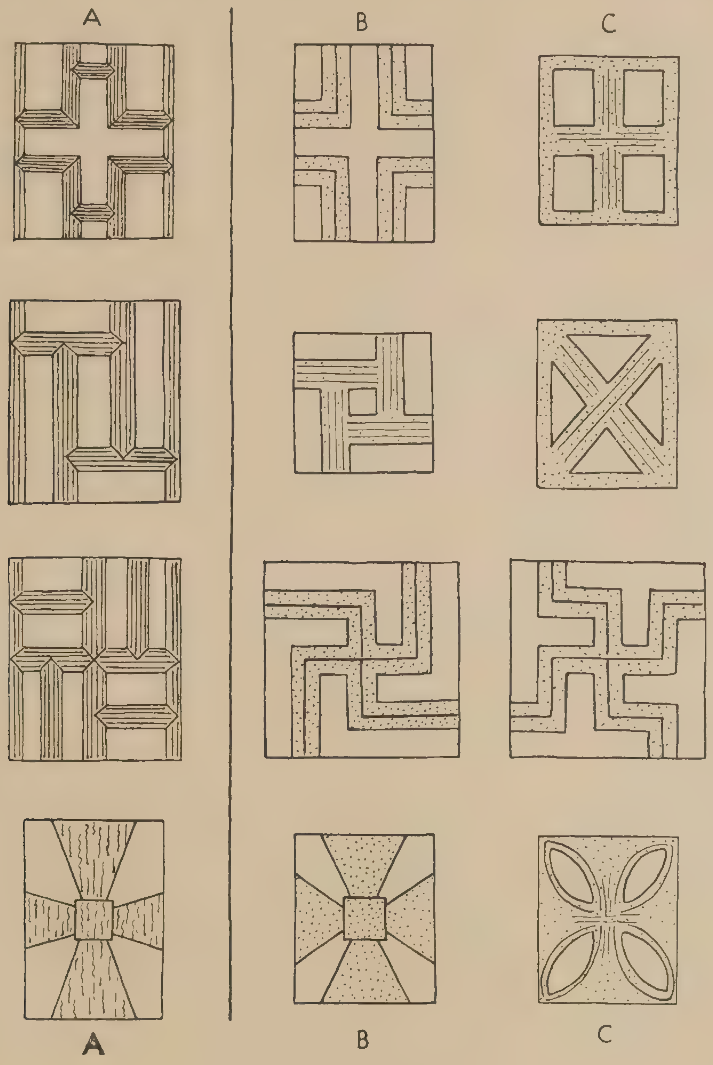

FIG. 19. Window fillings

One interesting form of window-filling, consisting of twin arches above a decorative panel, has a long history. It occurs at Debra Damo in the two windows of the original west front (pl. I *d* and fig. 21 A). At Imraha (fig. 21 B) we find it repeated with modifications: the lower panel is divided and the shafts of the small columns supporting the twin arches have been shortened, between base and capital, almost to extinction. This latter feature might be considered degenerate (as compared with the more natural version of Debra Damo) but it occurs, in fact, among the decorative motifs of the giant stela at Aksum which was much earlier even than Debra Damo.[1] Some of the pierced-stone fillings at Imraha have a kindred twin-arched design (pl. IV *a*). Finally, an unmistakable survival of the same thing occurs in the rock-church of Medhane Alem at Lalibela (fig. 21 C). The upper corner-pieces of the usual

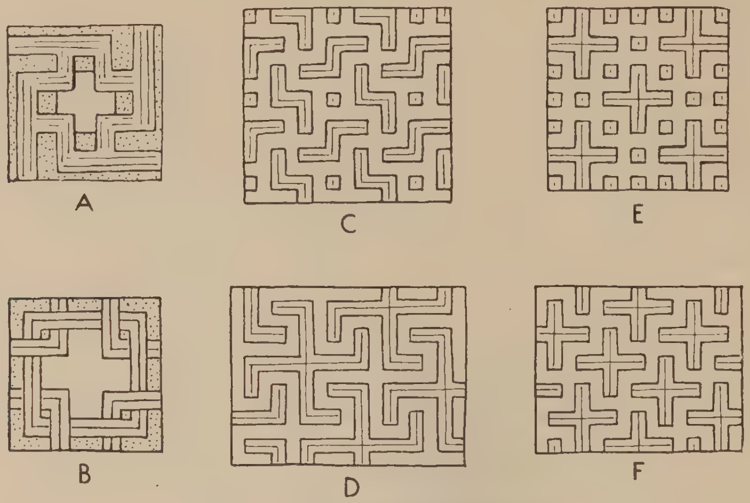

FIG. 20. Window fillings and panels

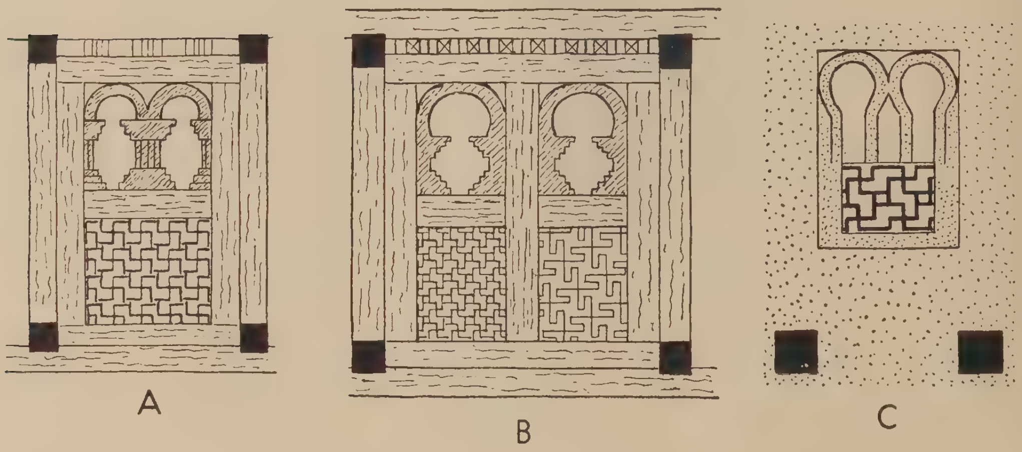

FIG. 21. Twin-arch windows

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[1] *D.A.E.*, p. 26.

surrounding frame are missing here, and the two lower ones have parted company with the 'filling'. Other panel-designs from Medhane Alem windows are given diagrammatically in fig. 20 C–F.

A design of window at Mikael, Lalibela, and a similar incised pattern in the western porch of Mariam (fig. 22 A, D) are both suggested, apparently, by forms appearing in the twin-arch window just described. Two colonnettes of the type there used, with 'stepped' capitals and bases of identical form, have here been crossed at right angles.

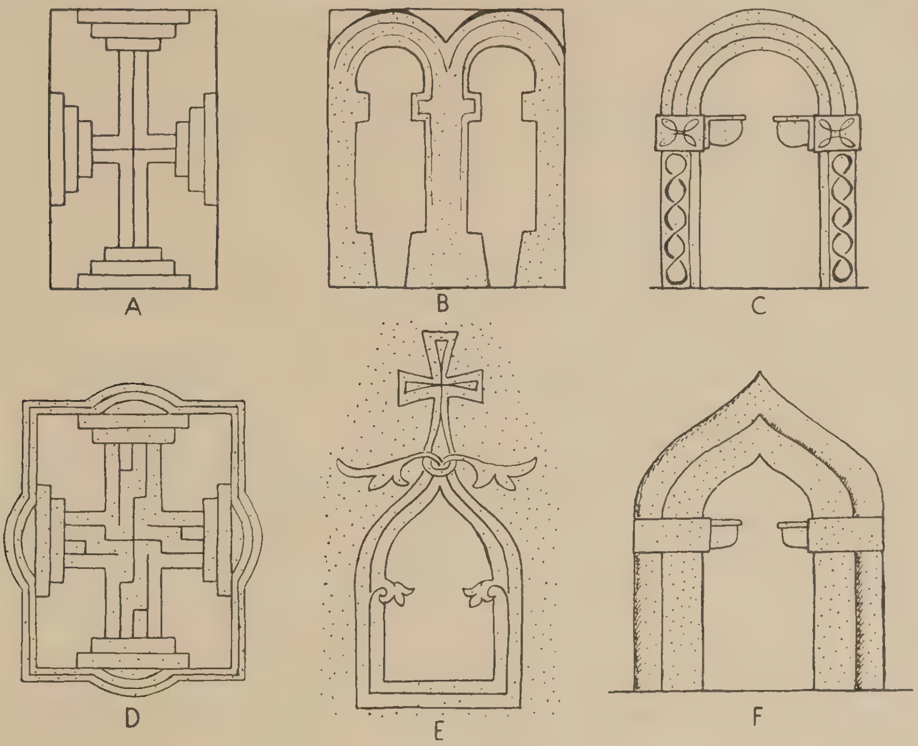

FIG. 22. Rock-church windows, &c.
A. Mariam. B, C, D. Mikael. E, F. Ghiorghis

It seems probable that these stepped forms were derived from a type of stone base and capital (itself originating, in Krencker's belief, from forms built in brick) occurring in the early Aksumite style. If this is so we have an instance of a brick-built feature being copied in stone, which was in turn copied in wood as an ornamental motif for windows, and finally reproduced in stone again at Lalibela.

4. *Columns and Capitals* (fig. 23)

Constant reference has been made to 'bracket-capitals', for it soon became obvious to me that the capitals found in old Ethiopian churches, whether built-up or rock-hewn, are mere groups of brackets. Originally they were not thought of in any other way, and brackets were freely used in pairs, or even in groups of three. Only later—in some rock-churches—did the usual quadruple bracket come to be regarded as an indivisible unit. That these are not true capitals is shown by several considerations:

(*a*) Their form alone shows them to be collections of brackets.
(*b*) No such form is found among the numerous varieties of early Aksumite capital.
(*c*) They were sometimes used *on top of* Aksumite capitals, as proved by copies in stone at Lalibela.

It can be assumed that the various forms of wooden bracket were used in connexion with Aksumite ceilings, especially in the upper stories of the palaces, which may have resembled fig. 13 (see also p. 21). They were later used in churches and finally copied in stone.

We must first consider the single bracket, used of necessity where beam-ends or arches abut against a wall. There are good examples, usually crowning a pilaster, at Debra Damo and, in an elaborated form, at Imraha; very simple ones are employed (without pilasters) in the subsidiary building at Imraha (fig. 13). They occur again in stone at Lalibela. In its elementary state, merely rounded-off below and with or without a simple moulding, this bracket is so obvious a form that it must have been used in all countries and at all periods.

The next stage to consider is the double bracket, adapted to carry a beam. The Aksumite builders apparently had two ways of supporting horizontal beams on uprights. Where the upright was a slender wooden post (as presumably in the upper stories of their palaces) a double bracket was employed (cf. fig. 13). But on the ground floor—as the remains prove—monolithic columns were generally used, with capitals of more or less cubical form which were sometimes carved out of the same block of stone. Judging by what we find in the nave of Debra Damo, these columns, with their cubical capitals, supported a lintel-beam direct (fig. 23 A and pl. II *c*).

However, at some stage in the development of church-building it must have been realized that wooden brackets had an advantage over the clumsy Aksumite capital in supporting a horizontal beam. So the double bracket was inserted, like a Byzantine *dosseret*, on top of the capital, and the supporting surface was appreciably elongated. This stage is recorded, copied in stone, in the rock-church of Abba Libanos at Lalibela (fig. 23 B). I know only one other example of a double bracket in stone (without an Aksumite capital below)—in the rock-church at Sokota.

The quadruple bracket must have come into use in very early times to support four beams meeting at right angles on the same level. It is used in such a situation in the narthex at Debra Damo (pl. II *a* and fig. 23 E). As in the case of the double bracket, it was later placed on top of Aksumite capitals, and copies of this arrangement can be seen at Lalibela (Mariam and Mikael churches, pls. VI *d* and VII *a*). But in most rock-churches the bracket-capital is used by itself (fig. 23 F).

At Imraha we have interesting evidence that the constituent brackets of these capitals were still, in the twelfth century, regarded as independent elements. The piers of the nave lead up to arches of the nave-arcade on two sides, and to a transverse arch over the aisle on the third side; in each of these positions there is a bracket (fig. 23 C). On the fourth side, facing the nave, there is no arch or beam and therefore no bracket—a perfectly logical arrangement (fig. 23 D, and pl. V *d*). I have come across no other examples of three-lobed bracket-capitals. Such lop-sidedness was not tolerated at Lalibela where, in exactly corresponding positions, the fourth bracket was always added for the sake of symmetry (Mariam and Amanuel, pls. VI *d* and VIII *b*). At Bilbala Ghiorghis, however, the presence of brackets at different levels on one pier shows that they were still regarded as independent elements by some hewers of rock-churches.

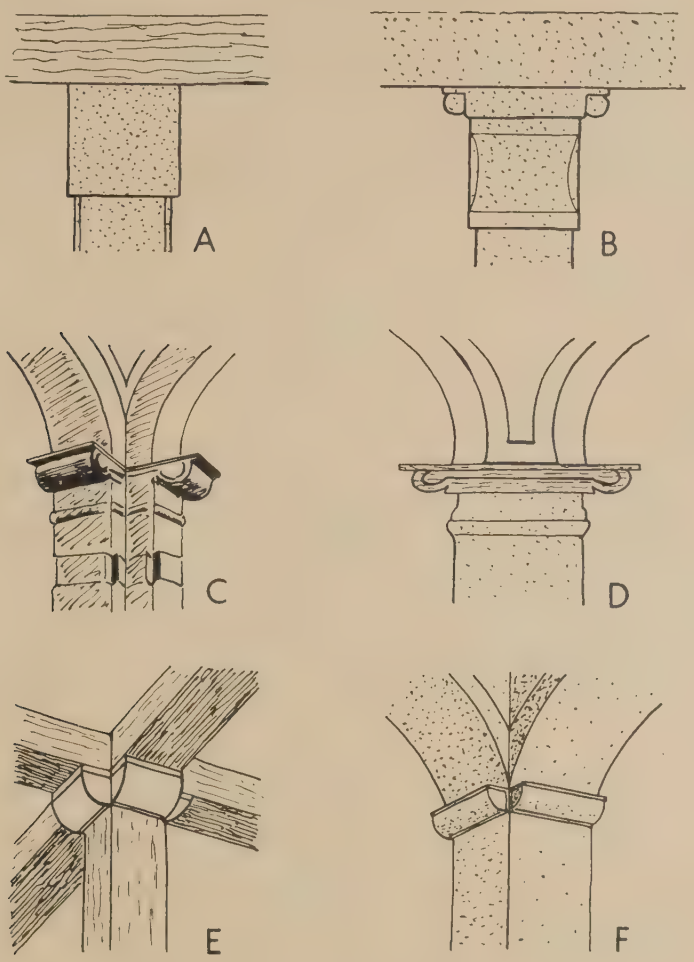

FIG. 23. Bracket capitals

5. *Arches* (fig. 24)

Miniature arches and arcades were evidently known as a decorative element in the Aksumite style, and there are traces of such on the stelae at Aksum. There is, however, nothing to show that arches were introduced as essential parts of the building in pre-Christian times, the architecture of which was wholly trabeated. It seems certain that the arch was introduced, tentatively at first, in Christian times and was one aspect of the basilican influence already discussed (p. 11). Even so it was never, as adopted in Ethiopia, a true constructive arch. In the built-up churches it consists of two or more wooden segments cut in the shape of an arch and fitted together; in the rock-churches, of course, everything is in one piece and no feature can be regarded as truly constructive.

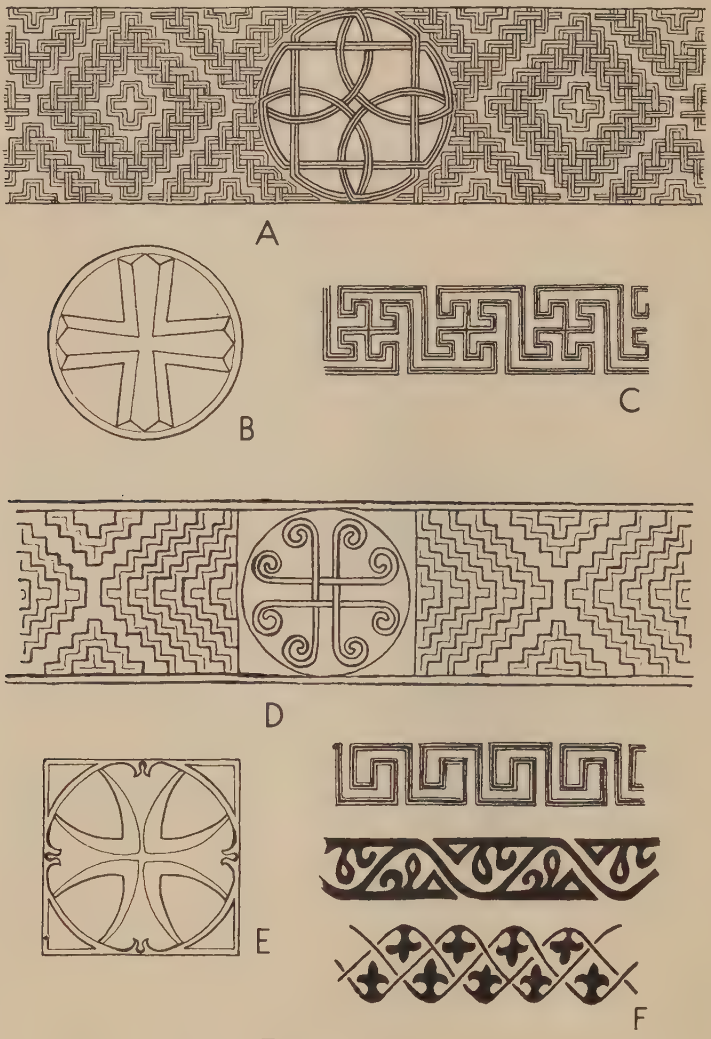

Fig. 24. Arches
A–C. Aramo. D–F. Lalibela Mariam

Debra Damo illustrates an early stage in the introduction of the arch, only one being included. Abba Libanos at Lalibela reproduces in stone the stage when a second arch was inserted at the western end of the nave. As conjectured above (p. 28) St. Mary of Zion at Aksum probably had an arch at either end of all four side-aisles as well as the nave. At Imraha, and again in the principal rock-churches at Lalibela (Medhane Alem, Mariam, Amanuel), arches have almost completely superseded the primitive lintel.

Elaborate geometrical decoration was apparently applied to these arches from the first. The Debra Damọ arch is carved round its outer edge and doubtless on the soffit also, but this has not been verified. Fine examples of such decoration are provided by the fragments of wooden arches at Aramo (pl. III *c*) whose similarity to corresponding decoration at Lalibela, copied from such wooden prototypes, is most striking (pl. VI *d*). The soffits of these arches usually carry interlaced or zigzag designs, with a circular medallion in the centre (fig. 24 A, B, D, E); the vertical edges have, as a rule, 'key patterns', often based on swastikas (fig. 24 C, F).

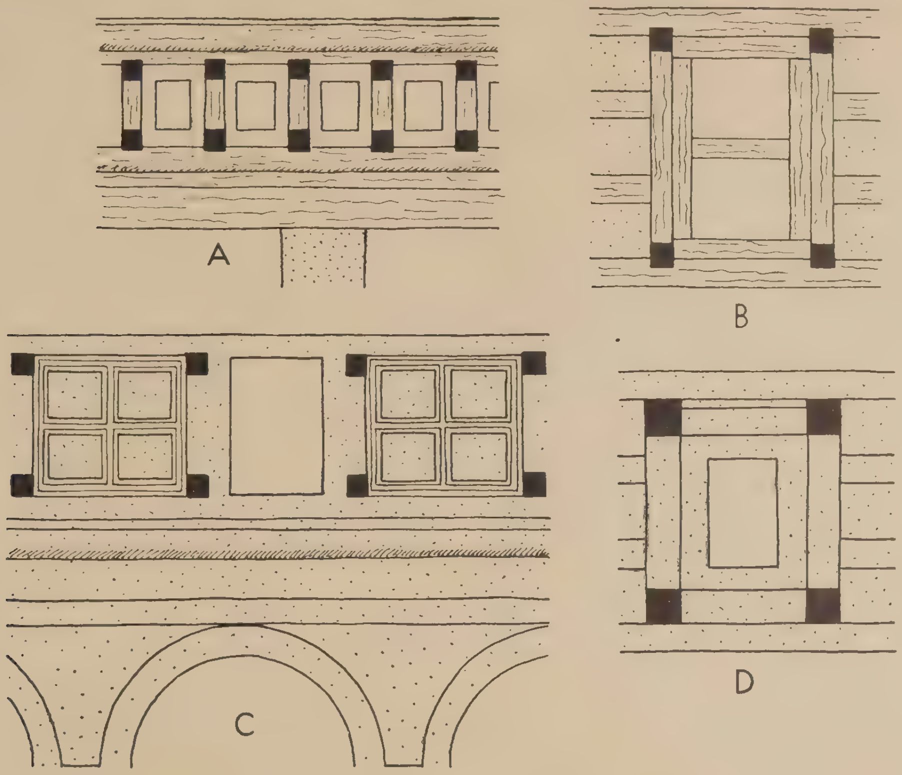

FIG. 25. Friezes and windows
A, B. Debra Damo. C. Lalibela Mariam. D. Lalibela Amanuel

6. *Friezes* (fig. 25)

These are the most pleasing and characteristic element of early Ethiopian interiors. They are constructed after the pattern of windows, in which adjoining panels share a single vertical element of the frame. Judging by the double and triple windows of the Aksum stelae (there was never room for a longer series) these friezes probably existed in pre-Christian Aksumite architecture.

Two distinct types of frieze occur, and there is no good reason for supposing that one is much earlier than the other. Both occur in built-up churches and both appear again in stone, that variety being chosen which happened to suit the case in hand.

The simpler frieze, consisting of a series of identical panels, was used at Debra Damo, and again at Jammadu Mariam; it is seen copied in solid rock at Amanuel and Abba Libanos (Lalibela), also at Woghoro. When the nave required windows (as at Debra Damo and Amanuel) these had to be inserted above the frieze (fig. 25 A).

The second type is broader and consists of fewer, and larger, panels. It incorporates perforated panels, alternating with blind ones, and so obviates the necessity for windows at a higher level. We know this form in wood at Imraha, and find it reproduced in stone at Lalibela Mariam (fig. 25 C).

This is our last illustration of the persistence of local forms in Ethiopia through many centuries—from pre-Christian to medieval times—in spite of changing style and changing material. Evolved in perishable material, and used in perishable buildings of which few remain, these forms became incorporated at last—and so preserved for all time—in the rock-hewn churches. In retrospect the theme of this paper may seem, after all, a familiar one. It is one more version of that old story, well known to every student of architecture—the translation of wooden forms into stone.

On a Missing Alhambra Vase, and the Ornament of the Vase Series

By A. VAN DE PUT, Esq., F.S.A.

I

THE HISPANO-MORESQUE VASE GROUPS

PRESENT knowledge of the so-called Alhambra Vase series suggests that a known total of a dozen or so examples falls short of the vases that exist. A fine though, as usual, imperfect addition to the group attributed to Malaga, excavated at the Carthusian monastery at Jerez de la Frontera in 1930, is now in the Archaeological Museum at Madrid. The Burgio Vase was almost unknown at the moment of its acquisition for the Instituto de Valencia de Don Juan, Madrid, in 1924, although recorded by Michele Amari in 1872,[1] together with its fellow at Mazzara that entered the Palermo Museum in the eighties of the nineteenth century. The 'Giarra di S. Ugo' with an immemorial location at the Cistercian church at Novara, near Messina, but a precise *état civil* going back less than half a century, has more recently asserted itself. If the 'Giarra' is ill preserved, the details of its decoration that are available indicate with some likelihood that this is a Hispano-Moresque vase of Alhambra type; though, to judge from its reported dimension as to height, of the second, rather than the first rank. It may have been one of the *plusieurs vases découvertes en Sicile* in which Girault de Prangey discerned, perhaps not too correctly, the closest analogy of shape, execution, and material to the surviving specimen at Granada.[2]

As regards Granada, the total—necessarily irrespective of the vases alluded to by Bertaut[3] in November 1659, when he visited the Garden of the Bastions (de los Adarves), below the citadel at the western end of the Alhambra precinct—may nevertheless be taken to have included one of these: the great vase still existing at the Nasrid palace, which, with its long missing fellow, was engraved in the original part of the *Antigüedades árabes de España*, published at Madrid between 1777 and 1792 (Fol.).[1] The first (pl. XIII *a*) has given a convenient if misleading designation to the entire series of Hispano-Moresque amphorae decorated in lustre pigment, most of which can never have been at the Alhambra, much less, it appears, have been produced at Granada. The group assigned to the Granada potteries, to which the pair that survived in the late eighteenth century[2] have served as nucleus, forms a minority in the series as a whole.

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[1] *Storia dei musulmani di Sicilia*, iii, 794, 1872; New edn. iii, 817, 1939. Amari, if willing to allow the existence of a school of ceramics in Sicily from Muhammadan times, refrains from attributions of date or origin: the Mazzara vases are Spanish—of the Isles (i.e. the Balearics) or of the mainland. He refers, for the term 'Siculo-moresques' to which he demurs, to Marryat, *A History of Pottery*, 2nd edn., 44, 1857. This error having passed into the new edn. of the *Storia*, it is time to point out, so far as concerns Marryat, that 'Siculo-moresque' made its appearance as the attribution of a Syrian jar, 'brought from Caltagirone', among the additions, initialled 'A.S.' to the French translation, Paris, 1866, i, 27–9, fig. 11, of Marryat's 2nd edn., 'ouvrage traduit de l'anglais . . . et accompagné de notes et d'additions par le Comte d'Armaillé et Salvetat', whence it was, not unnaturally, incorporated in the 3rd edn., London, 1868–9—'Siculo-Moresco'. Darcel had already used 'italo-moresques' in 1864, in the Louvre catalogue, *Musée de la Renaissance*, Série G, Notice des fayences peintes, 47. But Demmin in 1868, *Rassegna archeologica siciliana*, 1871, certain sale catalogues: J. Paul, Hamburg, 1882, Villa Salviatino, Florence, 1891; *Les Arts*, 1902, the Madrid *Boletín de la Soc. Española de Excursiones, 1903*, Curtis, *Roger of Sicily, 1912*, have carried on an attribution to Sicily which was almost inevitably applied to the 'Giarra di S. Ugo', by E. Mauceri in 1930. The question, as to the vases of Mazzara, can hardly be said to have entered a new phase since the excavation in medieval Syracuse of lustred fragments and glass weights bearing the names of members of the Fatimid governing house, 975–1094 (published by P. Orsi, *Boll. d'Arte*, ix, 249, 1915), the crucial point being the claim asserted for the vases to have been made in Sicily so long after the decay of Muslim culture (A.D. 827–1061; Norman rulers, 1043–1194) as to display staple motives of the Hispano-Moresque ornament developed between the rise of the Almohades (1148–) and the early fourteenth century.

[2] *Souvenirs de Grenade et de l'Alhambra*, 1837, explication des planches.

[3] *Journal du voyage d'Espagne*, 1659–60, 83; he says 'de grands vases de terre peinte, aussi belle que de la porcelaine, où il n'y avait pour lors, sinon quelques fleurs en quelques uns'.

The few detailed criticisms elicited by Granada II (by which name the second or missing vase (pl. XIII *b*) will here be referred to) are hardly discerning expositions of its ornamental content; no doubt because it has been largely overshadowed by the vase that has survived it and also owing to the less usual elements its decoration included. As a glance at the print discloses, these extend from the plant-form to the zoomorphs and the armory: to the fundamental therefore and, given Muhammadan origin, the exceptional alike. A further detail emerges. But for the inscriptions that accompany the shields of the Nasrid dynasty of Granada in the upper zone, the ornament lacks the Kufic or *naskh* epigraphy, or both, usually displayed by an 'Alhambra' vase. Finally, and as to shape, the scolloped or engrailed edges to the under sides of the wings are, I believe, unknown before the third quarter of the fifteenth century when they occur among Valencian wares.

As to the quality of the *Antigüedades árabes* prints, all that can be said is that they are of their epoch as to accuracy: loose copies in respect of the types of ornament they purport to reproduce; certainly mere interpretations where stylistic rendering is concerned. Here criticism encounters a difficulty. The fact that the arabesque which is Granada II's predominant motive is disguised embodies a problem that must at any rate be disposed of. A less tolerant judgement is, in the writer's opinion, deserved by the print (XVIII) delineating the existing vase, however much more difficulty its scheme may have presented to an eighteenth-century draughtsman. The engraving might figure, as a curiosity, in an exhibition of antiquarian illustration, and need not—as

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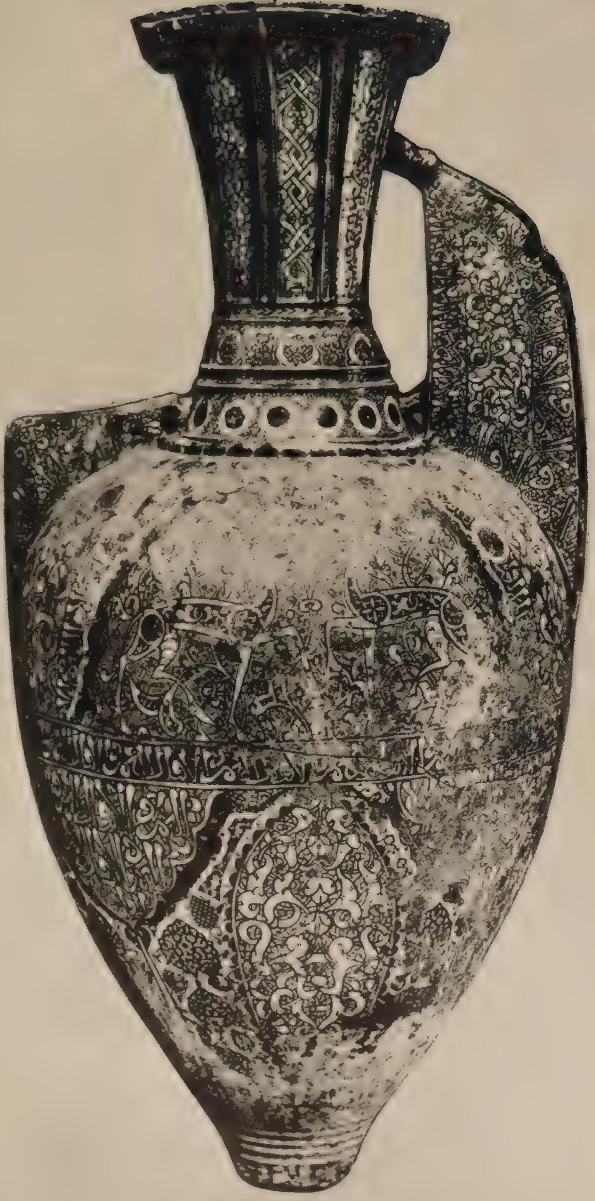
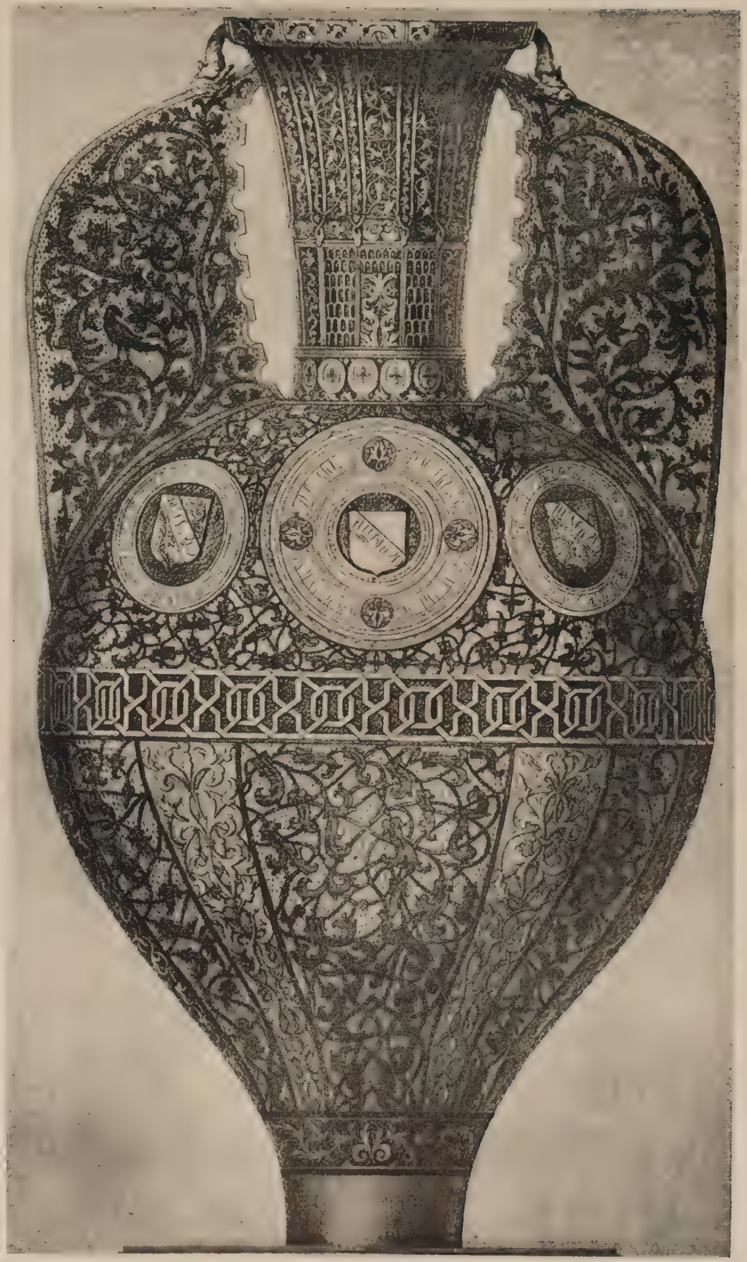
[1] The prefatory statement to the continuation: 'Antigüedades árabes de España. Parte segunda que contiene los letreros arabigos que quedan en el palacio de la Alhambra de Granada, y algunos de la ciudad de Córdova. Publicadas por la Real Academia de San Fernando e interpretados y explicados de acuerdo suyo por Don Pablo Lozano, bibliotecario de S.M. (etc.), Madrid en la Imprenta Real, año de 1804'—establishes that the undated original part of the *Antigüedades árabes* appeared anonymously under the auspices of the Conde de Floridablanca (Don José Moñino) when Minister of State, i.e. 1777–92; what evidence there may be for the date 1785 the writer has not been able to discover. Also that the inception of the work dated from 1764, but the original drawings being found inadequate, the execution of fresh ones was confided to two Directors of the Academy de S. Fernando, Don J. de Villanueva and Don P. Arnal, under the directorship of Don J. de Hermosilla. Different engravers were employed upon the plates of this part, but only pl. XXIV is lettered, by M. S. Carmona. The Heredia, later Foulché Delbosc copy of the *Antigüedades árabes*, includes a supplementary issue of 23 of the plates of the second part, with Casiri's readings of additional inscriptions, inserted upon them.

[2] Or at latest until some date between 1804 (when, beside the existing vase, there was to be found at the Alhambra another that was copied for the R. Academy of S. Fernando—Contreras, *Estudio descriptivo*, 2nd edn. 1878, p. 293) and 1814, when the vase extant to-day was in a room looking on to the Court of the Myrtles—Echeverria, *Paseos*, 2nd edn., p. 192. The second or missing vase was (according to Ford, 1845, p. 375) broken during the governorship of Montilla, *c.* 1808, who used the fragments as receptacles for flowers. Owen Jones refers to the accident as having happened only a few years before, the pieces being sold to travellers—*Plans*, etc., 1837, i, pl. 45. In 1869 Henri Regnault writes that a vase neck is, he believes, in the house of Señor Contreras, at Granada; *Correspondence*, p. 314.



a. The Alhambra Vase. Palace of the Alhambra, Granada



b. Vase Granada II. From *Antigüedades árabes de España*, p. xix

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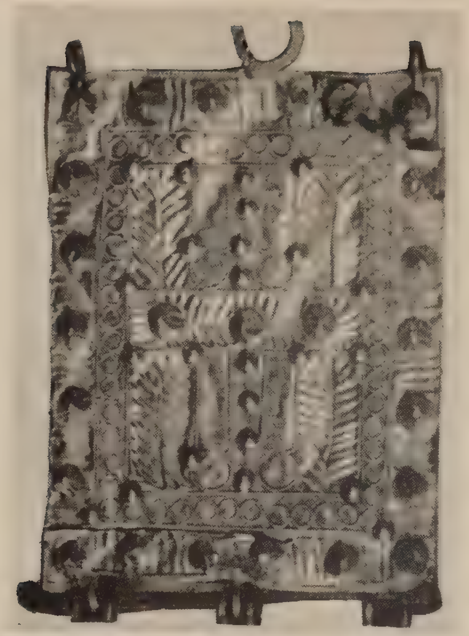
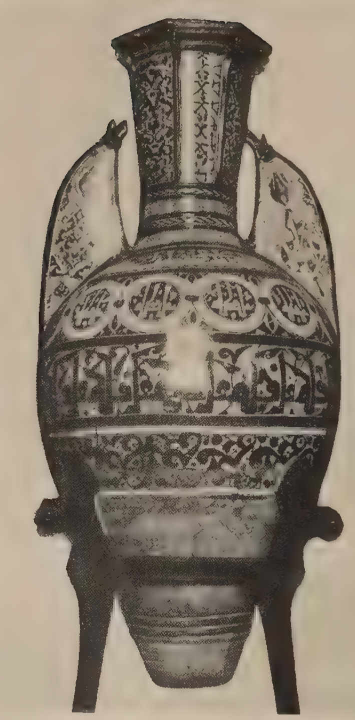
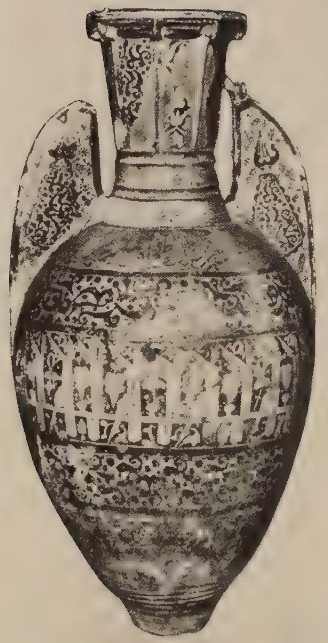


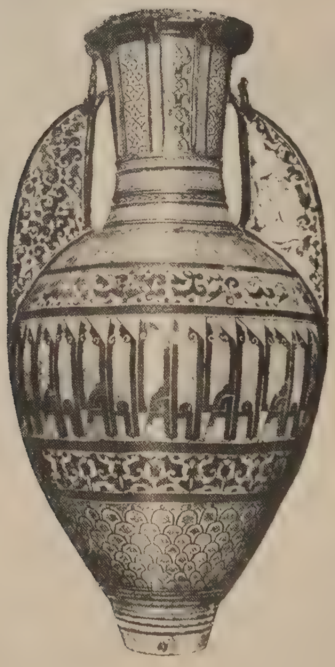
a. Gold plate. Palm-stem motive, 11th century, Umayyad. Victoria and Albert Museum



b. The Salar Vase. Hermitage Museum, Leningrad



c. The Jerez Vase. Museo Arqueológico Nacional, Madrid



d. Mazzara I Vase. Museo Nazionale, Palermo

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casting a certain reflection upon the bona fides of Granada II (xix)—be reproduced here. Nor in the detail of the scale of Granada II relative to its companion are the data afforded by the *Antigüedades árabes* much more satisfactory. We are told that Granada II was of the same style, material, and size as the existing vase, but are confronted with full-page prints showing their engraved figures measuring (height by sight diameter) $15\frac{3}{4} \times 7\frac{5}{8}$ in. as regards the latter and, for Granada II, $16\frac{9}{16} \times 9$ in. Calculations and surmises as to the probable height of the missing vase and also whether its girth actually exceeded that of its fellow, as seems likely, will for reasons of space be left aside.[1]

It follows from the nature of the case that Granada II's ornamental affinity with one of the vase groups already mentioned is here the object of investigation. The inquiry, of necessity centring on the plant-form content of Hispano-Moresque vase ornament, will, as a result, underline the painter's dependence upon the arabesque of the classical period of Moorish art as well as—within the range of the known pottery—the ornamental schemes broadly distinguishing two of the principal pottery centres. The historico-doctrinal basis of the contrast in decoration afforded by the Malaga and Granada vase groups will also be thought worthy of notice. As to the terminology employed—(*a*) *arabesque*, with its time-honoured meaning 'the foliage ornament of Muslim art', or 'the admittedly dominant ornament of that art';[2] and (*b*) *leaf*, for its component units, need no commentary, unless because the substitute term *palm* (Gall. *palme*) will be, in this purely Hispano-Moresque connexion, discarded. The latter label, of no iconographic appropriateness as applied to the Hellenistic, somewhat fleshy plant-form in the Khalifate of Cordova, ignores the existence, in the Muhammadan art of the Peninsula, of a plant motive of a definite, if somewhat limited kind, supplied by the stem and leaves of the palm-tree, and that since Medina az-Zahra in the tenth century.

Such instances, naturalistic and conventionalized, of the *hoja de palma* motive may be cited as the gold plates with filigree decoration of arches and rings, bosses and palm-branches in relief found, together with coins of Al-Hakem and Hisham II (961–1008), in an earthenware pot, in Murcia (Victoria and Albert Museum, n. 1454–1870) (pl. xiv *a*). The stucco consoles from the Aljaferia, the eleventh-century palace of the Huddite dynasty of Zaragoza, display stylised palm motives.[3] In ceramics the motive of the palm-branch and its foliage is perhaps first encountered in sherds occurring at the two successive Hammadite sites in Algeria—the Qalʿa and Bougie, founded in 1091 and peopled with Andalusians, which fell to the Almohades in 1152. Although here the evidence has its special complications, the attribution: second period Hammadite appears[1] to be warranted. The palm was as a consequence, probably, of the Arab conquest, omnipresent in extensive belts of Andalusia, Murcia, and Valencia, in the later Muslim period. The geographer Yakut (d. 1229) reports that Murcia, the metropolis of Todmir, was surrounded on every side by palm-trees and groves.[2] An Egyptian, Ibn Fadl Allah, speaks of a great bazaar at Malaga where baskets and other domestic appliances were made of palm-leaf, about A.D. 1337, under Yusuf I of Granada.[3]

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[1] The measurements given in the table of the *Antigüedades árabes*, pt. i, for the existing vase, figured in pl. 18, are 'su altura quatro pies, y trece dedos; el mayor diámetro dos pies y seis dedos'. If the Castillian foot (*pié*) is equivalent to 28 cm., and the 'finger', 18 mm., a height of 1354 mm. results, against a recently published height of 1365 mm. or about 4 ft. $5\frac{3}{5}$in. According to Davillier, the vase measures 1·36 m. height by 2·25 m. (about 7 ft. $3\frac{7}{8}$ in.) circumference.

[2] Herzfeld, 'Arabesque', in *Enc. of Islam*; *O.E.D.*

[3] Cf. Torres Balbás, 'Los modillones de lóbulos', *Archivo esp. de arte y arqueol.* xii, 57, 54 fig. and those from the remains of the mosque at Almeria, *ibid.*, pl. xviii. The ornament, derived from Al-Hakem and Almanzor's additions to the Mosque of Cordova, described as 'una gran hoja digitada e incurvada, sin duda de palma', should be compared with the photograph, Terrasse, *L'art hisp.-mor.*, pl. xxxviii, where the central motive of the modillion is given an ultra-naturalistic touch-up. The opinion, *op. cit.*, p. 345, as to the part played by the palm-branch is based upon insufficient evidence.

In the fourteenth century almost a cult of the palm-stem and its foliage obtained in the ornament of stanniferous pottery of the type found at Pula in Sardinia—referable to Manises under the Buyls, and perhaps to the intermediaryship of the offshoot of that house at Milis—elements of which motive are discernible in the ribbed compartments of the style decorated in lustre or lustre and blue with the conventionalized tree of life and degenerate Arabic characters for the word *alafia*.[4]

The more important data for the rise of lustred pottery in the Peninsula were, until comparatively recently, the mention of bowls of golden (*mudhahab*) ware preserved in trade formularies of Toledo earlier than A.D. 1066; the tin-enamelled fragments painted in lustre pigment with what appear to be imitations of the style of Samarra and Rayy, excavated in the remains of Medina az-Zahra, the Cordovan palace built by Abd ar-Rahman III in the first half of the tenth century, and destroyed in 1010–25; Edrisi's reference in 1154 to Calatayud, a city under Aragonese dominion since 1120, as a seat of the manufacture of golden pottery, whence also it was exported. This is followed by allusions to Malaga's eminence in the same art by no less than five Arab writers—Ibn Said (d. 1286), Ahmad ben Yahya al-Omari (1337), Ibn Fadl Allah, an Egyptian who speaks of 'porcelain' (1349), Ibn Batuta (*c.* 1351), Ibn al-Khatib, sometime vizir of Granada (d. 1374). The earliest of these, Ibn Said, brackets Malaga with Murcia and Almeria in the production of glass and golden pottery at a time when the great Andalusian port for Africa had still to earn fame, and that for a ware grafted decoratively upon elements of the then recent Almohade style. The earlier phase of production at Malaga has at length been elucidated by Señor Gómez-Moreno's researches in connexion with the disencumbrance of the citadel or *alcazaba* of Malaga, illustrating eleventh-century ceramics at the period of the earlier *reyes de taifas*, the kings portioners of the territories of the Khalifate, when Malaga was ruled by the Hammudid dynasty,[5] a scion of which is claimed as ancestor by the Burgio of Mazzara, proprietors until 1924 of one of the two vases connected with that city. These competently published finds, together with certain groupings of extraneous items, reveal, for the eleventh century, vases and sherds moulded in relief, mainly slip coated, with remains of lustre. The decoration which is stylistically that of Umayyad ivory relief, includes *lions passant* among arabesque, bordered by a kind of Greek fret (vase from Malaga, Vives coll.); Kufic lettering, arabesque border (jug fragment, Koechlin coll.); arcading and arabesque (vase body, Cordova). For the twelfth century the *Alcazaba* has furnished lustre pottery in two techniques: the fragment of a ware comparable to the *bacini* of Ravenna, Pisa, and at Berlin, the decorative motives in purple lustre, enriched with *sgraffiato* upon slip, comprising interlacing; lastly tin enamelled pottery, the linear and epigraphical (Kufic) ornament in gold lustre, generally in the style of tiles, etc., found at the Qalʿa of the Beni Hammad, Algeria. The discoveries, supported so far by presumption of local origin based mainly upon technical comparisons, not to mention the ceramic repute of Malaga, will sooner or later, no doubt, receive the positive confirmation supplied by the craft evidences usual to potting sites.[1] In view of Malaga's fame the lack of such evidences for the *Alcazaba* finds of the next period of production might perhaps be thought less vital.

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[1] Marçais, *Les poteries et faïences de Bougie*, pl. v, n. 6, 7; xii, 9; cf. p. 16.

[2] Yakut, *Dictionary*, iv, 497, quoted by Amador de los Ríos, *Murcia y Albacete*, p. 777.

[3] Cited from the Encyclopaedia of Ibn Fadl Allah, *Homenage á D. Francisco Codera*, pp. 470–1.

[4] Van de Put, 'Le ceramiche ispano-moresche, *Faenza, Boll. del Museo internaz. delle Ceramiche*, xx, xi–xiv.

[5] At Malaga, 1016–57; at Algeciras, 1039–58 (?); Khalifs (after Sulaiman, Umayyad), 1016–26. See also Appendix, 2: Mazzara II Vase. The Hammudids were succeeded by the Zirids, of Granada, 1090.

The Malaga industry of the early fourteenth century is recorded by a Customs entry referring to an import of 30*s.* worth of dishes and jugs of Malyk' which paid a due of 4½*d.* at Sandwich, Kent, in 1303.[2] The entry falls chronologically between the two earliest of the already mentioned Arabic records: those of Ibn Said (d. 1274) and Ahmad ben Yahya el-Omari (*c.* 1351), when its pottery was about to ensure for it an enduring fame. That Malaga's reputation sufficed to determine the origin of Hispano-Moresque vases generally is therefore hardly surprising until—long after Granada was seen to have possessed ceramic resources of its own—the incongruities attending a single attribution of the whole series became increasingly clear. Since the publication by Sarre in 1903 of a dish decorated in lustre with interlacing and arabesque, having an Arabic word written in *naskh* characters on its base that was asserted to be the name *Maliqa* (Malaga), in any case a valuable stylistic appendix to the vases of the monochrome 'golden' or Malaga group, opinion has not ceased to harden in favour of the division of the series, as to origin, between Granada and Malaga. Some technical observations relating to the colour of the 'biscuits' or fired clays support this grouping; Granada's, ferruginous, reddish to dark red; for Malaga, straw or greyish straw colour, to rose when overfired—the 'barro rosado' of the *Alcazaba* and related sherds. Unfortunately the data are at present neither systematic nor complete. Whether valid differentiae exist for centres of lesser repute has still to be seen. The ornamental schemes—in many vertical and horizontal bands respectively—of the vases from Hornos (Madrid), and at Stockholm, the provenance of which is unknown, are sufficiently different as to suggest—especially the former—that Almeria or Murcia may be represented by one or the other. It may be added that, although perhaps of no great cogency from the standpoint of origin, a definite pronouncement by a body of ceramists, of the real technical nature of the great vase at the Alhambra, establishing its status as a member—if now an over discrete one—of the lustred vase series; or else, as the outstanding example of the art of glazing based upon the *melado* (honey colour) or lead ore technique in combination with metallic oxides, would be of considerable value to ceramic history. It is now long overdue.

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[1] Gómez-Moreno, 'La loza dorada primitiva de Málaga', *Al-Andalus*, v, 386, etc., 1940 (in progress). Guillén Robles, *Málaga musulmana*, 1880, parte segunda, cap. ii, 546–53, gives a record of finds, vocabulary survivals, etc. A document published by J. Temboury, from the Malaga archives, shows the failure of its ceramic industry subsequently to the conquest of the city in 1487 to have been more radical than has been supposed. A petition of 3rd January 1491 requests the *repartidor* to assign quarters in pursuance of the awards made by King Ferdinand, and in particular two houses and their appurtenances for as many 'mestros de hacer vedriado', i.e. potters, in technical acceptance, makers of enamelled ware, which the city had decided to send for to Valencia for the restoration of the said '. . . oficio de hacer vedriado'. The preamble refers to the old time industry. The date is that (1491, O.S.) of the fall of the Alhambra, Granada, *Al-Andalus*, iv, 433.

[2] The entry, the only one of its period, occurs in the London Record Office MS. K.R. Customs 124/11. An account of the New Custom on cloth, wax, and goods subject to poundage, imported or exported by aliens at the port of Sandwich, 10th February 1302—3–4th May 1303. Originally published by Mr. L. F. Salzmann, F.S.A., *English Trade in the Middle Ages*, pp. 415–16; then by Gras, *The Early English Custom System*, p. 269; for facsimile, cf. Van de Put, F.S.A., *The Valencian Styles of Hispano-Moresque Pottery*, pl. 1; pp. 18, 83.

Here, as an investigator of the later Hispano-Moresque of some years standing, the writer must add that the composition of the present paper has been subject throughout to the embargo upon certain sources of reference and of illustration, to say nothing of the virtual inaccessibility of the monuments, occasioned by the war. In these circumstances and because the type of arabesque employed by the vase painters offers few variations in form from the current style in Andalusia, the closer comparisons necessitated once the apparent genesis of the armorial compositions upon Granada II made a coherent account of its artistic scheme possible, were based upon that great corpus of mature Hispano-Moresque decoration in which Owen Jones, now a century ago, embodied in colour facsimile the memorable survey of the fourteenth-century Alhambra undertaken by him and his then lately deceased friend, Jules Goury.[1] Further, Jones and Goury's plates (cf. Appendix, 3) have, for the purpose of such comparisons, been supplemented by reference to sporadic photographic reproductions of passages of the Alhambra decoration published in many works additional to those cited in the List of Authorities (Appendix, 4) or in the notes to this paper. The book by Almagro Cardenas, giving photographs of buildings and interiors, that mostly date from before the fall of the city in 1492, is entered in the List, however, as being unique of its kind.

II

1. THE MALAGA VASE ARABESQUE

Regarded as pottery ornament the Hispano-Moresque plant-form and geometrical elements are less a selection of motives than an expression of the unity of a style that required for its application merely technical adjustments. The contrast, however, between the decoration of the vase at the Alhambra—a masterpiece of ceramic polychromy entirely in keeping with the Nasrid palace—and any of the 'golden' vases of the group assigned to Malaga (pl. XIV *b–d*), is fairly complete. Alone the neck ornament of the Granada vase betrays a regard for the formulae observed in the schemes of, e.g., the Salar, Jerez, or Mazzara I vases. Over-maturity of style is, on the one hand, suggested at Granada; at Malaga, on the other, an art still in its prime.

As to painting technique, the method distinctive of the Malaga group, by which plant-form was, as a rule, silhouetted in lustre pigment upon the coat of tin enamel, reveals itself as essentially adapted to plainer foliage types than those used, e.g., on the Alhambra vase. It allowed of the suppression, not only of outline, but of all strokes within the contour, other than those possibly incised through the pigment. These all-lustre schemes of Malaga comprise, it is found, a plain-contour arabesque of some half a dozen fundamental leaf-forms that were utilized upon the walls of the Alhambra side by side with developments of the older, digitated or the 'inlayed' types of leaf, versions of which the vase there preserved also exhibits.

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[1] Owen Jones and Jules Goury, *Plans, Elevations, Sections and Details of the Alhambra, from Drawings taken on the Spot in 1834 by the late M. Jules Goury, and in 1834 and 1837 by Owen Jones, Archt.*, 2 vols., Fol., London, 1842. (Hereinafter referred to as 'J. & G.')

Its essential character once grasped, the arabesque above and in the various segments below the interlacing upon the body of Granada II (pl. XIII *b*) will present no real obstacle to critical assimilation. The chief distortion of the motive, the rococo effect given to the component leaves, barely suffices to disguise the structures of certain more typical shapes that may be traced back in Hispano-Moresque to the early twelfth century.

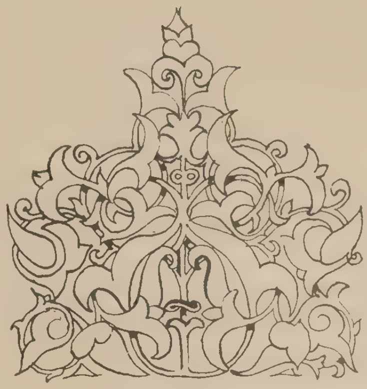
FIG. 1. Almohade plant-form, 12th century. Tinmal (Terrasse)

A crowded plant-form of digitated leaves (pl. XV *a*), and both Kufic and *naskh* inscriptions, were comprised in the ultra-elaborate ornament inherited by the Almoravides (in Spain, 1091–1146) from the late Cordovan style that flourished under the *taifa* kings. The Almohades (1148–1212, 1228–48, etc.), the next African wave, especially in the lifetime of their first ruler, Abd al-Mumin, d. 1163, brought to the service of a puritan doctrine wide spatial conceptions and a selective genius in architectural decoration that were manifested by original applications of rectilinear interlacing and a plain-contour arabesque in which appear the parent or antecedent shapes of this variety of classical Hispano-Moresque ornament.[1]

Be it recalled that the modern alinement of the Moorish architecture and decoration of Spain and Northern Africa has largely restored the Hispano-Moresque art sequence by supplying for the loss of all but the palace buildings of these two dynasties. If Almoravide North Africa is to-day the architectural sequel to *taifa* Spain, then also Nasrid Andalusia and Morocco under the Marinids are heirs of the Almohades.[2] Under Almoravide, Almohade, and Marinid, moreover, the directing influence is Andalusian.

The initial forms of the Almohade period that are of significance for the plain arabesque of Andalusia under the Nasrids may be cited from the mosque of Tinmal (fig. 1), and the minaret of the Booksellers Mosque (*al-Kutubia*) at Marrakesh, both foundations of Abd al-Mumin, the latter completed, 1194–7, by his grandson Sultan Abu Yusuf Yakub, who defeated Castille at Alarcos, 1195, and the third Khalif of his house—for Abd al-Mumin had in his own person revived the Khalifate of the West. Bold contemporary developments of this plant-form, remarkable for their elaboration and rhythm, are carved upon the monumental gateways erected by Abu Yusuf Yakub at Marrakech and Rabat. Here the stalking is notably thicker than that of the stucco or painted arabesque of Tinmal and the *Kutubia*, and plays a part only secondary to the resulting leaf-forms. Other spandrel reliefs illustrating African arabesque of classical type during the second half of the thirteenth century are those of the arsenal gate erected by the Marinid sultan, another Yusuf Yakub, at Salé, 1260–70 (pl. xvi *a*); and of the great mosque at Taza, enlarged by Abu Yakub, 1286–1306. At Chella, the necropolis built at Rabat by Abu 'l Hasan Ali, 1339, the great gate arabesque shows the realization of classical forms; likewise, in combination with the digitated leaf, that of the college or *madrasa* of Salé (pl. xvi *b*), built by the same Sultan in 1333. Of these Marinid rulers, the first and second mentioned were the contemporaries of Muhammad I and II of Granada; the third, of Yusuf I, under whom began the great building epoch at the Alhambra.

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[1] In spite of a theory of origin which would derive Almohade arabesque from the fusion of the Hellenistic, acanthine plant-form of the Khalifate (cf. Medina az-Zahra) and the nondescript Abbasid style of Samarra, under Fatimid influence in Ifriqiya (Tunisia), there is an underlying evolution of contour, of which the leaf shapes of Cordovan ivory carvings, as of the spandrels of the great mihrab at Cordova, of one style at the Aljaferia and finally, of Almoravide digitated arabesque, are capable, which appears to have provided Abd al-Mumin's designers with material for this plain outline plant-form.

[2] The African dovetail between Cordova and Granada was apprehended in regard at least to the Almohades by Girault de Prangey, *Essai sur l'architecture des Arabes et des Mores en Espagne, en Sicile et en Barbarie*, 1841, pp. x, xi. The essential synthesis is demonstrated by the French art-historians of North Africa and notably by Messieurs Henri Terrasse, the late Henri Basset, Prosper Ricard, J. de la Nezière, also in Spain by the Marqués de Loyoza, Señor L. Torres Balbás, and others—more especially in the works referred to below. (See Appendix, 4.)

The complete display of classical Hispano-Moresque style is hereafter comprised in the Alhambra and the Generalife at Granada, and in the *Alcázar* of Peter I of Castille, the 'Sultan Don Pedro', at Seville, in conjunction with the colleges (*madrasas*) of the Marinid period, together with certain Moroccan mosques in traditional Almoravide and Almohade styles. If the homogeneity of Hispano-Moresque decoration is indubitable, except in the early Almohade period when Abd al-Mumin's austere *décor large* was not invariably the Andalusian ideal, the question cannot fail to insinuate itself as to the relative quality of these Spanish and African pronouncements in the same idiom. Here, starting from Monsieur Henri Terrasse's conclusions regarding the comparatively ornate character of the remnant of the great mosque of Seville, he may as well be quoted verbatim:

> Enfin, le décor de la Giralda est plus riche et surtout plus menu que celui des minarets marocains. L'emploi de la brique ne suffit pas à expliquer l'abondance un peu mièvre de ce décor: le minaret de la Qasba à Marrakech, bâti et décoré de briques lui aussi, est d'une admirable vigueur. Il semble donc que l'Afrique ait traduit, au moyen des formes de décor andalou, un idéal esthétique plus simple et parfois plus fort que celui de l'Andalousie. Au XIV^{e} siècle encore, les médersas mérinides seront d'une composition moins subtile et paradoxale, mais plus ferme, que les salles contemporaines de l'Alhambra. Sous des formes d'emprunt une âme originale peut s'exprimer; et, dans bien des monuments du Maroc, sous le vêtement de l'Islam, on croit voir affleurer quelque chose de la forte simplicité des œuvres berbères. La Giralda, au contraire, est d'une esthétique tout espagnole. En elle on reconnaît l'esprit de mobilité et de richesse qui animait les décors de l'Aljafería, qui fera s'étager les revêtements sculptés et les coupoles de l'Alhambra, ...[1]

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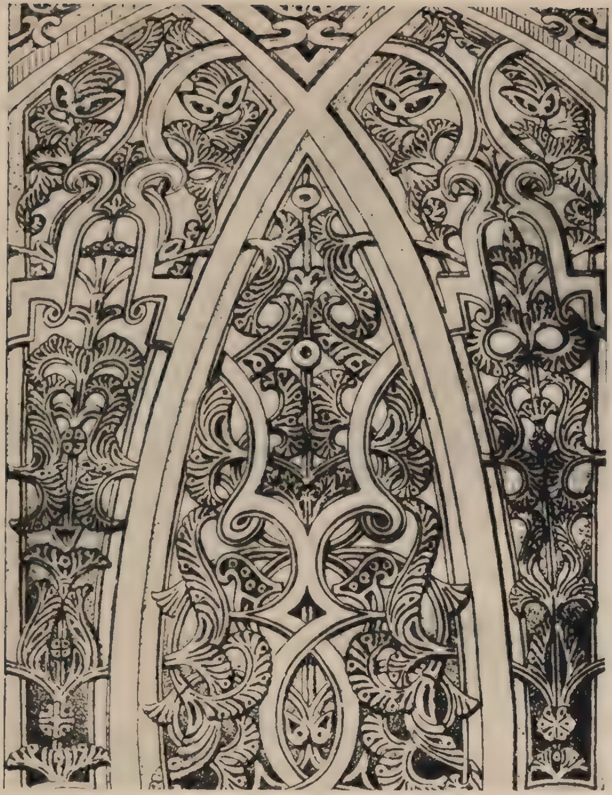
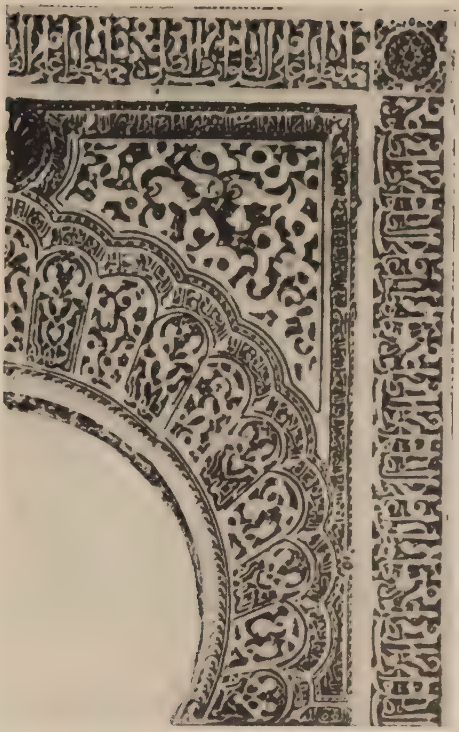
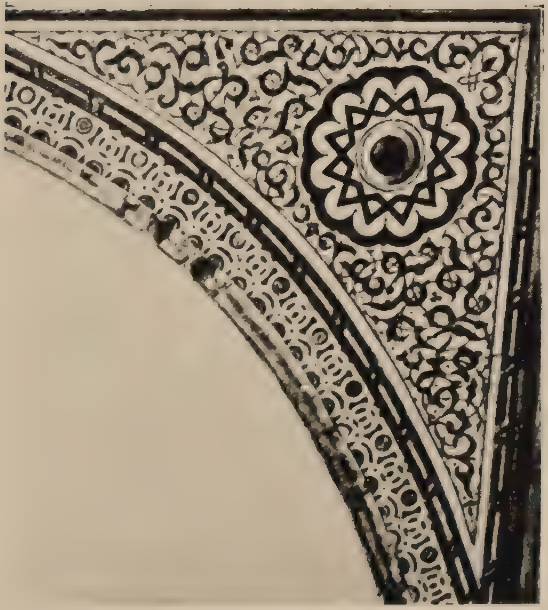
[1] Terrasse, *L'Art hisp.-mor.*, p. 379. Abd al-Mumin's mosque interiors are decoratively of a peculiar sobriety, the plant-form display being confined to the carved capitals, whereas the spare, large-scale interlacing round mihrab frames and friezes justifies the epithet *décor large* (cf. Basset and Terrasse, 'Les deux Kotobîy', *Hespéris*, vi, 161, 168, xxvi–xxxvii, especially the contrast between the mosque interior and the Cordovan pulpit with 'digitated' arabesque, made in Spain for Abd al-Mumin, 206–7). Whether this applied to civil interiors is unknown. Certainly the exterior decoration, as of minarets, might be profuse, in fact the early arabesque forms are preserved in the mural paintings of the *Kutubia* minaret, which has a brilliant cresting of white and turquoise tilework. Where known the few artists recorded are Andalusian; but the dynasty was short-lived and the inevitable reaction had set in under Abd al-Mumin's two building successors, even if the extravagances of the *taifa* school were not repeated.



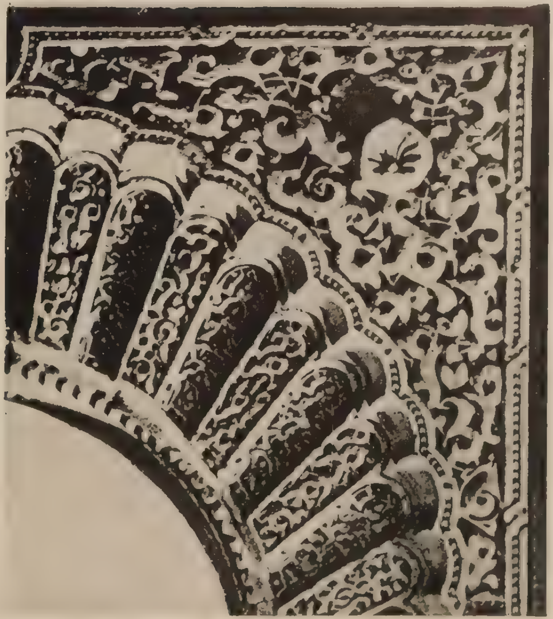
a. Almoravide plant-form, 11th century. Great Mosque cupola, Tlemçen



b. Mihrab spandrel. Portal Oratory, Alhambra. First half 14th century



c. Tile spandrel, second half 14th century. Gate of Wine, Alhambra



d. Mihrab spandrel from the mosque adjoining the Council Chamber, Alhambra. Second half 14th century

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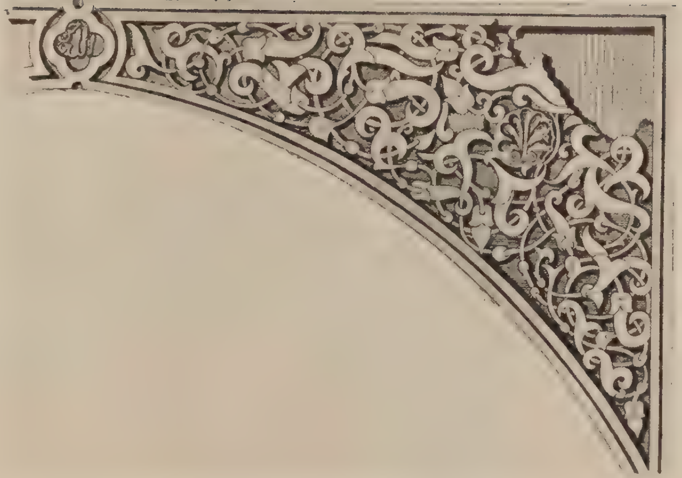
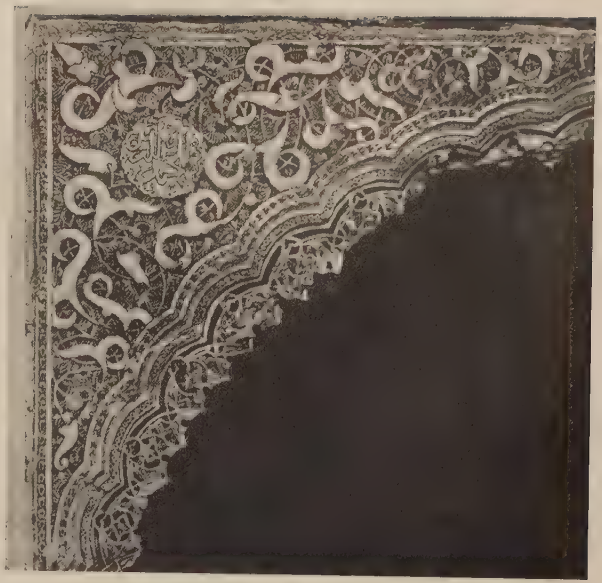
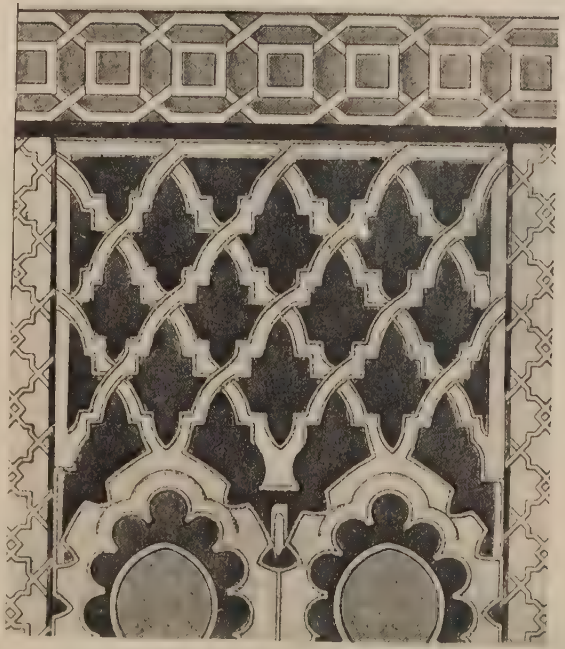


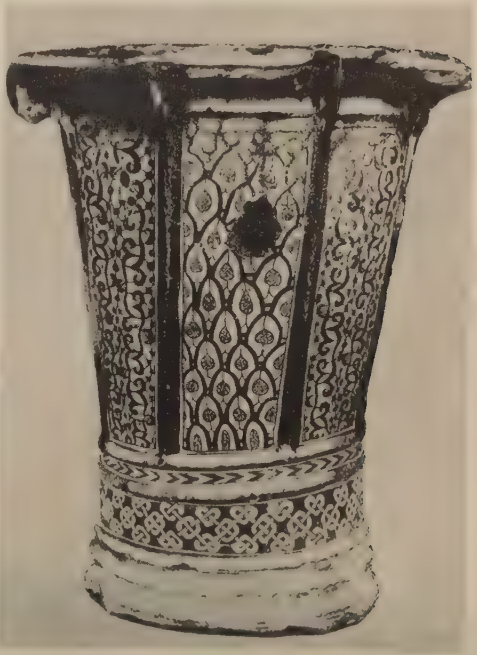
a. Marinid spandrel. Salé, El Mrisa Gate. 1260–70



b. Marinid spandrel. Salé, Madrasa. 1333



c. Architectural interlacing, ‘step and shoulder’.
Marrakech, Kutubia Minaret. 1194–7
(From *Hespéris*, III)



d. Vase neck and base.
(*By courtesy of Dr. J. Hirsch, New York.*)

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The conclusion follows that, if Spain introduced Morocco to Muslim civilization, she failed to undergo Moroccan influence. The rough disciple to whom she gave without stint worked no change in the Andalusian spirit. In the combination of the same ornamental factors Morocco is capable—as at Abu 'l Hasan's *madrasa* of Salé, 1333 (pl. XVI *b*), already referred to—of achieving effects entirely lacking the stylistic restraint of Andalusia.

The forms that constitute the plain leaf factor of the vase ornament occur to profusion in the arabesque fillings, principally of cut stucco, upon the interior wall surfaces, and notably those of the spandrels above arches and other wall openings throughout two of the palaces with which, between the third and last decades of the fourteenth century the Nasrid Sultans Yusuf I and Muhammad V transformed their stronghold. If, moreover, crystallization after a rapid rise to maturity in the main underlies the Granada aesthetic, phases of relaxation and decline have their place also in the classical Hispano-Moresque of Yusuf I's successors; and not inappositely, it would appear, to the vase ornament we know of. As embodying the arabesque in general, but especially the plain foliage of the vase series, the following parts of the Alhambra may be enumerated:

Reign of Yusuf I (1333–54). The Portal (*Partal*) Oratory; Hall of Comares or of the Ambassadors; Hall of the Bark (i.e. *Baraka* or Blessing); Court of Myrtles or of the Fishpond; Captive's Tower.
Reign of Muhammad V (1354–9, 1362–91). The former Royal Mosque, adjoining the Council Chamber (*mejuar*); Court of the Lions; Hall of the Two Sisters; Hall of the Abencerrages; Daraja's Chamber; Gate of Wine.
Reign of Saad (1445–6, 1453–61). Infantas' Tower.

The correspondence is not that of pattern; in wall space and vase zone alike the shapes combine, until the fifteenth century, with all the variety possible to conventional plant-form. Our analysis reveals the following standard shapes (fig. 2):

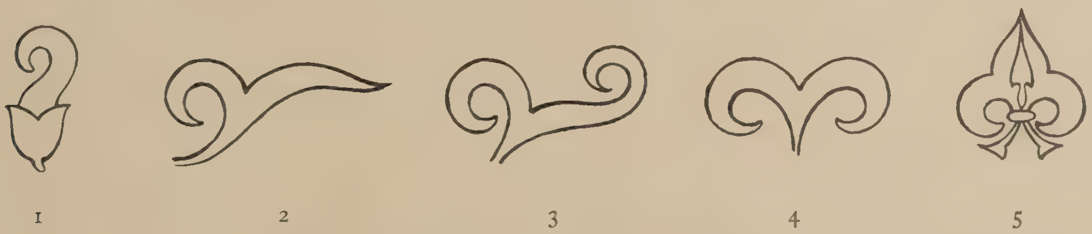

FIG. 2. Plain leaf-forms of Almohade derivation

Arabesque—Plain Leaf-forms

1. *Single*: rising from a simple or cleft calyx; volute or curved 'lanceolate' termination.
2. *Double*: the longer leaf with 'lanceolate' termination; the shorter leaf, a downward volute.
3. *Double*: the longer leaf with volute above; the other a downward volute; both curve in the same direction.
4. *Double*: two equal downward volutes, in opposite directions.
5. *Quadruple*: a fleuron composed of a pair of forms 2 addorsed vertically, with volutes below; the stalks linked.

Monsieur Marçais' observation that this ornament finds its most ingenious and brilliant applications within *mihrab* frames[1] is illustrated at the Alhambra by the spandrels above the *mihrab* or prayer recess of the Portal mosque (pl. XV *b*), as compared with those of the *mihrab* in the mosque or oratory that formerly adjoined the Council Chamber (*mejuar*), in which symmetry is imparted to the arabesque mass of each spandrel by means of a fleuron (form 5) having its point centred in the angle at the top and side of the frame (pl. XV *d*); this latter *mihrab* is of the reign of Muhammad V. That of the Portal is dated to Yusuf I, or even earlier, and the incoherence of its composition is shared by others of the first half of the fifteenth century devoid of any suggestion of axiality because of the haphazard arrangement of the forms contained.

The designs of these leaf-forms presented by the vase arabesque are not invariably true to type. The more curious variants are the combinations of pairs—of form 2, especially, as seen on the wings of the Jerez vase (pl. XIV *c*) and the Hirsch neck (pl. XVI *d*), standard versions of which are, however, forthcoming in the spandrel stuccos. The painter of the Mazzara I vase (pl. XIV *d*), who was an exponent of minute finish, almost denaturated his leaf-forms by studding their contours, but the underlying double forms and fleurons betray their presence; his embellishments included, in body zone 2, a kind of appendage to his versions of form 2 in the shape of a third leaf. Little favour is shown by the vase painters to the cusped versions of forms 2–4 that give a flamboyant effect to the ceramic arabesque of the Gate of Wine spandrels (pl. XV *c*) and to many interior surfaces at the Alhambra and elsewhere in Granada.

In the light shed by this secular palace decoration, the contrast to the style of Malaga presented by the Granada vase-group suggests something more than what independent, if related, schools of pottery could make of classical Hispano-Moresque art. That the heterogeneous scheme of the great vase at the Alhambra should have given a certain prominence to the richer plant-form derived from Cordovan art, as to unorthodox motives drawn from animate form, is little less significant than the adherence shown in the ornament of the Malaga group to a single conception that was beyond a doubt, rooted in the style evolved under Abd al-Mumin and his dynastic successors.

The two contemporary Spanish descriptions of Malaga ornament that are known to the writer tend to corroborate this limitation of content. Such documentation when not merely lexicographical is rare. In the ceramic field some fitting of the recorded names of Valencian *obra de melica* has been made to fifteenth-century lustre;[2] whilst the term for the so-called architectural interlacing will, the writer believes, receive a first application to pottery ornament in the course of these remarks. The descriptions alluded to belong to textile fabrics and one of them to silk, for which the famous Andalusian port was hardly less renowned than for 'golden' pottery. The two items concerned figure among a variety of effects for which in 1366 King Peter IV of Aragon issued the deputy *Mestre Racional* a discharge:

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[1] Marçais, *L'Art en Algérie*, p. 110; cf. *Enc. of Islam*, iii, 488, figs. 1–10.

[2] A. Van de Put, F.S.A., *The Valencian Styles of Hispano-Moresque Pottery*, 1404–54, etc. A companion to the *Apuntes sobre Cerámica morisca* of the late Don G. J. de Osma. New York (Hispanic Society of America), 1938.

> item, a piece of Malaga cloth, flowered in white, blue, yellow, and purple silk, which we have given to the Infanta Johanna.
>
> item a *jubba* of silken stuff of Malaga, having some designs in gold upon a yellow ground.[1]

Some experience of the medieval inventory and its verbal make-do suggests, that while these nondescript *obres*, 'works' or designs on the *jubba* may have been geometrical, and detached in form, the reference to the background as *camp* (i.e. field) makes a framed composition likely, and that a border, enclosing or even composed of *obres* or designs, after the style of lay-out of the contemporary Spanish carpets, was here in question; as witness the items of this nature in the great inventory of Don Martin, king of Aragon, 1410.[2] Plant form (*floratges*), and geometrical figures may be inferred here.

2. MALAGA'S GEOMETRICAL MOTIVES. LETTERING

Certain geometrical motives derived from Almohade art, with its stress on the linearly abstract, find a place in the Malaga vase scheme, if now less prominently owing to the worn condition of the surfaces in which they are to be found. The so-called architectural interlacing that in its most conspicuous applications enriches the brick or stone faces of mosque minarets, such as that of the Booksellers at Marrakech, at Seville (the Giralda—Ford's 'rich filigree belfry') and Rabat, furnished the lustre painter with a trellis design suitable for lowermost zones. As employed at the Booksellers' Mosque[3] this brickwork composition of circle segments and right angles alternately (pl. XVI *c*), known in Morocco as 'step and shoulder' (*derj ou ktef*) is seen in the Salar (pl. XV *b*) and second Mazzara (Madrid, Inst. de Valencia de D. Juan) vases; and rather freely, if better preserved, in a dish sherd in the Victoria and Albert Museum (pl. XVII *d*). A variant scheme of considerable refinement, based upon the fleur-de-lis aspect of the voids in the minaret interlacing, used for the dado adjoining the Portal *mihrab* at the Alhambra, may here be referred to (pl. XVII *a*). A similar pattern that suggests a frontal view of stalactiting, having a flower or like motive in each space, is used in the lowest zone of the first Mazzara (pl. XIV *d*) and Jerez (pl. XIV *c*) vases, and in the Hirsch neck fragment (pl. XVI *d*).

The geometrical figure of talismanic import known as Solomon's seal (*khatam sulaiman*) is a large-scale feature in the design of certain vases (e.g. pl. XVIII *b*) of both groups.

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[1] 'item una peça de drap malaqui encetada, la qual havem donada a la infanta Johana, ab floratges de seda blancha, blava, groga e morada' . . . 'item una aljuba de drap de seda malaqui, ab lo camp groch, ab algunes obres d or.' *Documents per l'Historia de la Cultura catalana migeval*, publicats per A. Rubio y Lluch, i, 210, 211. To Dr. Henry Thomas, F.S.A., I am indebted for the meaning of the Catalan *encetada*, which for want of a succinct English equivalent, it has seemed preferable to give in a note: *encetada* describes a piece of cloth which has already been cut into. For the lengthy, sleeved *jubba*, longer behind than before, cf. Dozy, *Dict. des noms de vêtements arabes*, p. 107.

[2] Van de Put, 'Some Fifteenth-century Spanish Carpets', *Burlington Magazine*, xix, 346–7.

[3] Gallotti, on the lantern of the Kutubia minaret (1194–7), in *Hespéris*, iii, 39–42, pls. I, II. In the *derj ou ktef* pattern of the architectural 'reseau de mailles' or 'red de lozanges', (*hisp.*) the segmentary curves supply the 'shoulders', the intervening right angles, the 'steps'. Cf. Maslow, on the mosques of Fez, 50, 59, 70, 181–2, figs. 17, 18; 181–2, and contents table, *sub* minaret. The interlacing is described as the last development, a purely decorative one, of the intersecting arches of the Khalifate, Torres Balbás in *Al-Andalus*, ii, 390.

A neck-base motive of continuous wedge shapes set vertically, in alternate courses with knotwork, was used horizontally for columnar decoration in the Hall of the Bark, the Courts of the Myrtles and of the Mosque;[1] cf. the Hirsch vase neck (pl. XVI *d*).

The selection of elements that fill the neck panels of the Malage vases—invariably alternations of arabesque and interlaced figures, sometimes demarcated by vertical courses of the neat curvilinear interlacing or knotwork employed horizontally for neck-bases—are found with greater decorative context in certain entablatures (pl. XVII *b*) of the Court of Lions and, to quote an African example, the *madrasa* at Salé, 1333.[2] Small-scale interlacing of this type appears upon Umayyad ivories, among them the Pampeluna casket, A.H. 395 (A.D. 1005), and the circular ivory box at Saragossa. A course of the same ornament at the top of the carved window or *mihrab* in the Tarragona cloisters is dated to the reign of Abd ar-Rahman III, A.H. 347 (A.D. 958).

The style of Kufic employed for the Malaga vase still awaits chronological delimitation. The character, silhouetted or in 'reserve' in, at all events, the major body zone, belongs to the ultra-florid type having diagonal terminals flowered on the under sides, that is depicted against a greater or less enrichment of plain arabesque. Such is the Kufic of the Jerez vase, as in a more vigorous rendering, is that of its Salar fellow (pl. XIV *b*, *c*). The lettering of the second Mazzara (Madrid) vase has floral terminals of realistic design; the field is of volutes. The first Mazzara vase (pl. XIV *d*) owes its austerer effect to a plainer character of like type against a more delicate background. As exemplified in the sepulchral chapel of Sultan Abu 'l Hasan (d. A.D. 1351) at Chella, the rich monumental epigraphy of the Marinid period appears to offer—but for its prolongations of the verticals (*alif*, *lam*) horizontally along the top of the inscribed zone and its sturdiness (pl. XVII *e*)—close analogies to the slenderer lettering of the vase group.[3]

The purport of these inscriptions is always an invocatory expression of altruistic character. Here the Kufic (*al*)*afia* (prosperity! fortune! benediction!) of the Salar vase appears as forerunner of the fifteenth-century Valencian deformation of the same word in the *naskh* character. A different combination of Kufic letters presented by the major zone of three others, Jerez and the two vases from Mazzara, shows a variant of this inscription.

III

THE GRANADA VASE GROUP

The exuberant growth against which, on one side of its upper zone (pl. XIII *a*), the pair of antelopes are set, *counter-passant* to a central fleuron (form 5), comprises individual renderings of the digitated and inlayed plant-forms, as well as hybrid varieties. On the opposite side of the great vase this composition is balanced by a plant complex having in the middle two inverted fleurons, one above the other, beneath an arching flanked by animals in the same antithetic pose. The richer leaf

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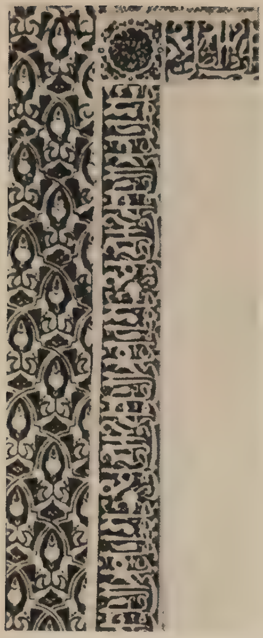
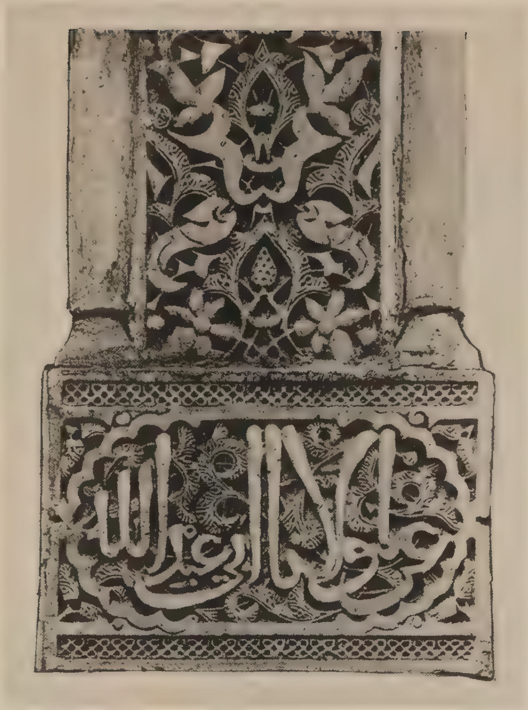
[1] J. & G., I, ix–xi, xxiv; II, xxvii.

[2] For the Alhambra, Saladin, p. 26, cf. pp. 23–5. For Salé, De la Nezière, xlix.

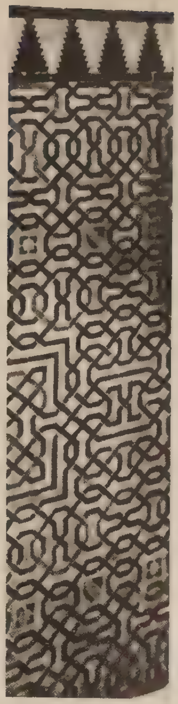
[3] Basset and Lévi-Provençal, 'Chella. L'écriture koufique', in *Hespéris*, ii, 305–6, fig. 52, XIV. Here, in the richest example, the carver's preoccupation is stated to have been less a legible text than the best possible decorative effect. For the gate inscription, *ibid.*, 300, fig. 51, cf. De la Nezière, xlv.



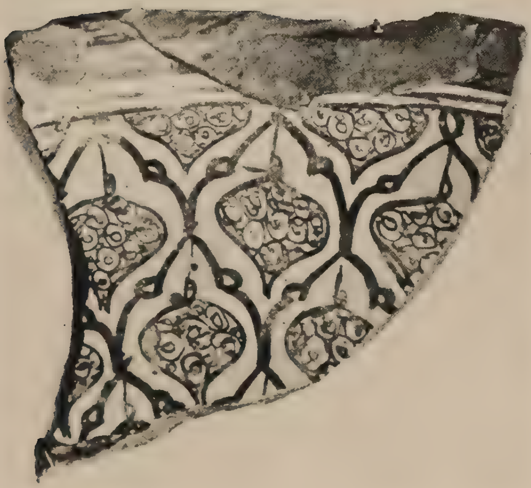
a. Dado and mihrab frame. Portal, Alhambra. 14th century



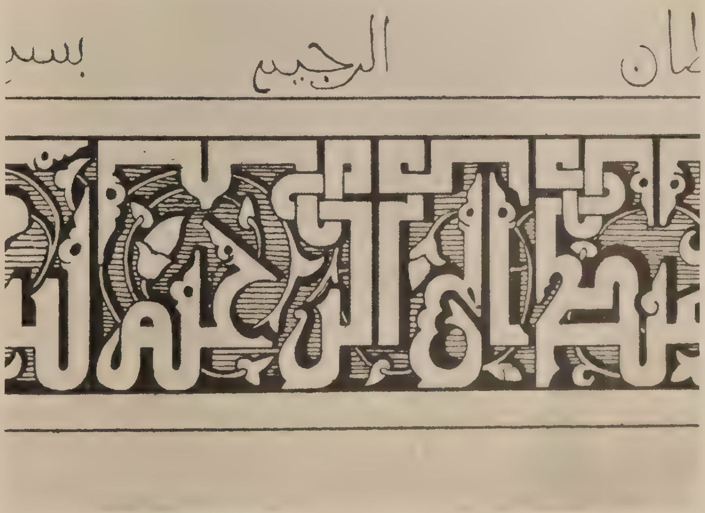
b. Entablature; arabesque, interlacing, *naskh*. Court of the Lions, Alhambra. Second half 14th century



c. Ceramic mosaic. Hall of the Two Sisters, Alhambra. Second half 14th century



d. Lustred sherd, interlacing 'step and shoulder'. Victoria and Albert Museum



e. Marinid. Kufic (Qur'ān—from opening sentences) and plant-form. Chella. *c.* 1351. (From *Hespéris*, III)

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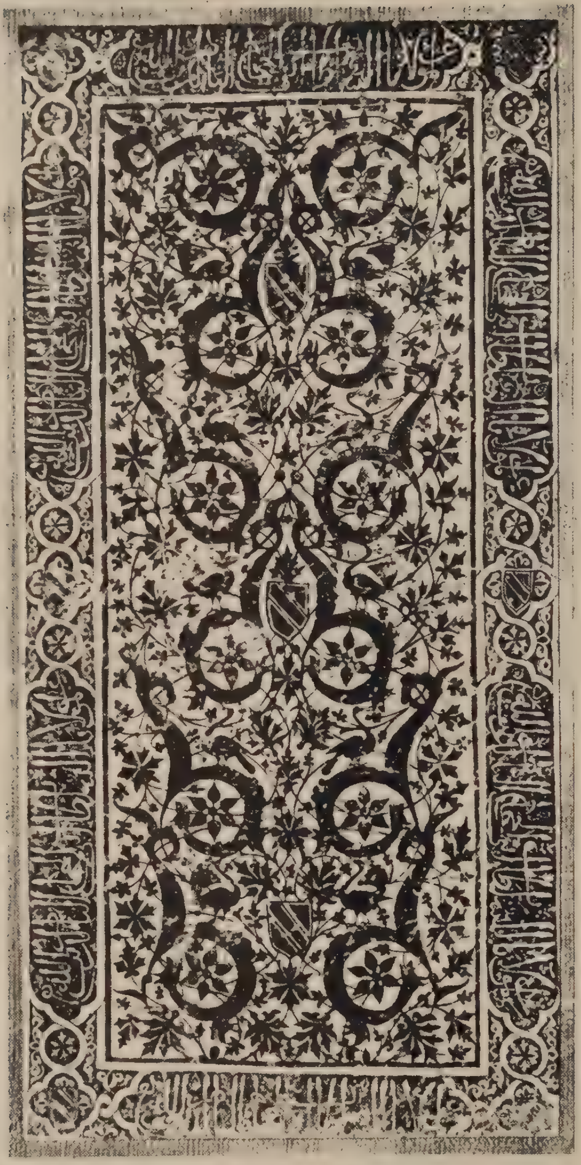
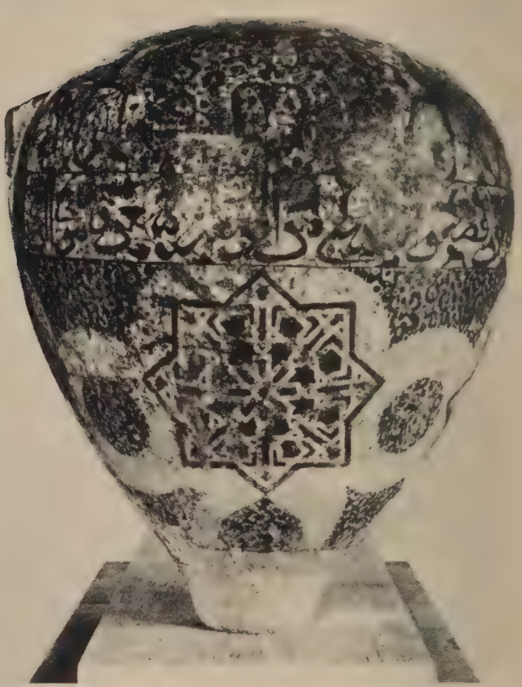
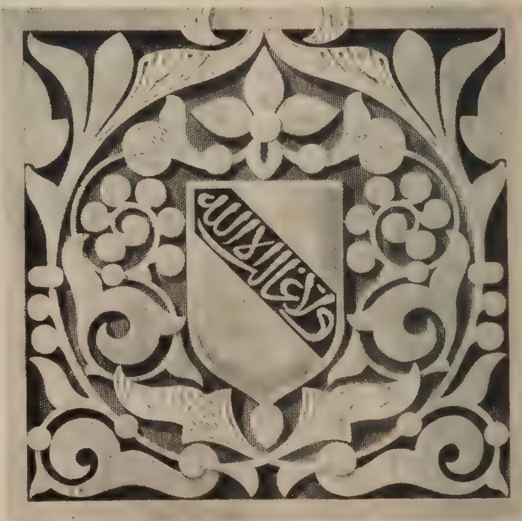


a. Ceramic plaque. 1407–17. Madrid, Inst. de Valencia de D. Juan



b. Vase body. Granada. Freer Gallery of Art, Washington
(*By courtesy of the Freer Gallery*)



c. Nasrid arms. Alhambra. 15th century

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types already alluded to are found in the ornament of the Tower of Comares and adjacent structures (*temp*. Yusuf I),[1] where there occur imposing examples of the fleuron,[2] as later, in the Hall of the Abencerrages. Except as to the plant-form of the wing and neck panels—here plain leaf, of unique sophistication, is given rounded digitations—a completer parallel to the style of the vase is afforded at the same period by the profusely decorated Hall of the Two Sisters, in which various arabesques, the fleuron, and *naskh* inscriptions combine. There, also, certain spandrels exhibit the relaxation of structure that, with ever more prominent stalk convolutions,[3] marks the overripeness of style suggested here by the scheme above the inscribed band. The lower zone shows vesica shapes with fillings of late, somewhat aberrant, plain leaf and *naskh* filled pendentives. The calligraphically treated devices that appear in the intervening fields will be recognized as identical with the heads of the tree-of-life (*hom*), a staple motive at Valencia in the fifteenth century.

An exotic effect is imparted to the vase's range of motives by a skilful counterchange of colour, in which the design, outlined in 'caramel' (golden brown), is painted in pale yellow upon blue above the inscribed band, and blue upon yellow in the neck and wings above, as in the zone below. The orientalism of the composition, perhaps at its strongest with the vase-wing to the spectator's right, owes much to the animals centred upon that side of the body. It is felt to a lesser degree on the opposite side where they are wider spaced. An ancient Near Eastern convention ultimately, the group's source of derivation in this instance appears to have been Persian or Syrian art, rather than that of pre-Almohade Andalusia. The late Sir Thomas Arnold's indication of the role played by thirteenth-century Rayy pottery as an inheritor of Sasanian art themes[4] marks the channel along which compositions of yet greater antiquity were susceptible of transmission to the West. None of these is more venerable than the 'antithetic group', examples of which depicting the tree-of-life confronted by animate forms (as here, antelopes; or, conventionalized human figures) occur also in the Valencian pottery of the fifteenth century.[5]

But for the employment of colour, and the *naskh* instead of the Kufic character, this small group offers no one decorative feature common to all its members. Near degrees of ornamental selectivity nevertheless underlie the schemes of the Alhambra, and Washington vases and the Berlin specimen. The disregard of multiple horizontal or vertical zoning apart, elements of style are suggested in the prominent display of a motive with or without a belt of inscription, and in the occasional inclusion of animate forms, together with a generally piecemeal, less organic distribution of surface. The Washington vase body bridges the gap between Granada and Berlin, which latter appear nearer related as to their execution. It displays a *naskh* of great rhythm and entasis, the band higher than with the Alhambra vase, but a similarly disposed animal group among arabesque above it. The scheme clarifies in the lower sector, with a Solomon seal of stencil-like effect eked out with arabesque-filled roundels and archings of kindred but less calligraphic style than the tree-of-life heads in the same area of the Alhambra vase. The designs are in dark blue, the inscription still retaining traces of gold outline (pl. XVIII *b*).[1]

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[1] J. & G., I, xix–xxi.

[2] J. & G., I, *mejuar*, xxv; Hall of the Bark, vi, xi, xii; of the Ambassadors, xxxvi; for adaptation of the fleuron as an Andalusian pottery motive, Kühnel, in *Jahrbuch der asiatischen Kunst*, ii, 175 pl. 100, figs. 9–11; and my *Hispano-Moresque Supplementary Studies*, p. 46.

[3] Saladin, p. 37; Mayer, p. 9.

[4] 'It is a phenomenon almost miraculous in its character —in the painting of this period, that in the art of the thirteenth century there re-emerge in the designs of this pottery of Rayy characteristics which primitively belonged to the art of the Sasanians, whose empire had been swept by the Arab conquerors in the middle of the seventh century' (Sir T. Arnold, *The Islamic Book*, p. 65; and *Survivals of Sasanian and Manichaean Art in Persian Painting*, *passim*).

[5] Van de Put, *Hisp.-Mor. Supp. Studies*, pp. 28–9. The dish in the British Museum found at Bristol, decorated with the tree between two antelopes, is reproduced in the Society's *Proceedings*, xviii, 331.

The upper part of the Berlin[2] vase illustrates the elaboration of which, though in a different direction, this style is susceptible. Here Solomon seals are set below an arcaded frieze crowded with arabesque, lustred and 'in reserve'. In structure the neck-base approximates to that of the Alhambra vase, and to the neck owned by the Hispanic Society of America. Its decoration comprises the same scheme for its upper tier, and inscribed roundels within broad rings fill the lower (cf. the Hispanic Society's vase neck (pl. XX *b*), and that of the Alhambra vase (pl. XIII *a*)).

IV

1. GRANADA II: THE BODY ORNAMENT

Granada II's arabesque (pl. XIII *b*) was almost certainly of plain, cusped type, albeit the preponderance of calyxed forms both above and below the band of interlacing might be thought to indicate that it was of the variety employed in the wings and neck panels of the existing vase,[3] or in the vase neck belonging to the Hispanic Society of America (hereafter considered). Reference to the companion print of the existing vase in the *Antigüedades árabes* shows that the engraver used such calyxed forms for the arabesque, whether of the wings, or above the interlacing, or in the vesicas below.

To these conclusions must be added the no less significant one that all the plain leaf-forms illustrated (fig. 2, nos. 1–4) are paralleled in their essentials of shape—one of them (no. 2) perhaps less clearly—in the calyxed arabesque of the dark-shaded panels of Granada II (cf. diagram, fig. 3), the narrow segments being mostly filled with chains of the fleuron (no. 5). Such vertical courses of plant-form found architectural application in the carved voussoirs of doorways in Hispano-Moresque style, as, e.g., those of the Tower of the Queen's Dressing Room (*del Peinador de la Reina*) at the Alhambra.[4] That also the painter of Granada II used a cusped arabesque and occasionally studded his stalk intersections, the print leaves no doubt whatever.

A fleuron and the unusual ornament employed upon the wings are shown in the band at the foot of the vase.

The continuous production of horizontal lines from above and below to form the diagonals of the central band of interlacing alone guarantees the authenticity of this feature of the vase's ornament as essentially Hispano-Moresque in treatment. A variant of this particular geometrical pattern, in which heptagons alternate with octagons and X-forms, as here to the exclusion of star shapes, occurs no farther afield than the Hall of the Two Sisters, in the dado (*alicatado*) of ceramic mosaic (pl. XVII *c*) against which, in a corner, the existing vase is exhibited. The example warrants Owen Jones's remark that there is no possible limit to the invention of designs of this description: the horizontal course so nearly resembling that employed upon Granada II, being traceable but twice—near the top and again close to the foot of the dado; some dozen courses between, that present variations mostly impossible to describe in words, result directly from prolongations, above or below, of the heptagons and X-shapes.[1]

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[1] I owe photographs and descriptive details of this vase to the courtesy of Mr. J. Lodge, Director of the Freer Gallery of Art, Smithsonian Institution.

[2] Reprod. by Sarre, *Jahrb. der Kgl. Preuss. Kunstsammlungen*, xxiv, 122; also Ferrandis Torres, *Los vasos de la Alhambra*, pl. VIII (*a*), also in *Boletín de la Soc. Esp. de Excursiones*, xxxvii.

[3] Cf. enlarged reprod. of the Alhambra vase neck, Folch y Torres, 'El tesoro artístico de España', *La cerámica*, vi.

[4] Torres Balbás, in *Archivo de arte y arqueología*, vii, 194, 209, vi.

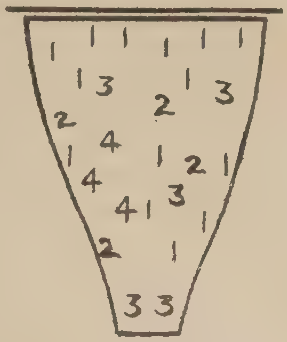

FIG. 3. Granada II, diagram of arabesque forms, central panel below interlacing

2. GRANADA II: THE WINGS—ACANTHUS

The remaining item of plant-form, the organically conceived motive upon the wings or handles of Granada II, has been recognized for anything but the phenomenon it is in Hispano-Moresque pottery ornament. 'Conventionalized naturalistic', together with a reference to the decorative flora of the synagogue, later church of the Death ('*Transito*') of the Blessed Virgin at Toledo, that in fact achieves (1360–6) a frankly natural or naturalistic rendering in *mudéjar* style,[2] has probably been its most venturesome assessment. Nor can it be referred to the naturalistic style of foliage that appears in the Hall and Court of the Bark, and in the Courts of Myrtles and of the Lions at the Alhambra, generally assigned to a phase of Spanish-Moorish collaboration under Peter the Cruel and Muhammad V of Granada.[3] In reality these pseudo-acanthus wing schemes, like the arabesque juxtaposed upon the body of Granada II, are denizens of the same artistic plane, as embodying respectively a European and a Muhammadan convention. The illuminated borders of manuscripts of the Hispano-Flemish school are probably the clearest evidence of the vogue of acanthus in the Peninsula, whither the style may have found its way in manuscripts of various national schools.[4]

3. GRANADA II: THE WINGS—ANIMATE FORM

The birds so arboured (fig. 2) are an example of that princely tolerance of the representation of animate form which, if forbidden by the Sayings (*Hadith*) of the Prophet, nevertheless appears at an early date in the art of Islam. To attribute

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[1] Cf. J. & G., i, pl. XLII, centre; Saladin, pl. 38; also Hall of the Abencerrages, pl. 31; J. & G., i, pls. 32, 33. Part of the repeat or unit composing the band is found as window tracery in the Hall of the Bark, *temp.* Yusuf I, J. & G., ii, pl. XLIV. These instances are, of course, fourteenth century; undated sepulchral slabs, excavated by Señor Torres Balbás, in the Raúda or cemetery of Muhammad V, may also be cited for such interlacing, *Archivo español de arte y arqueología*, ii, 273. Owen Jones, *The Grammar of Ornament*, xxxix, no. 10, illustrates a less spacious version of this particular geometrical composition.

[2] J. Amador de los Ríos, *Mon. arquit. de España: Toledo*, pp. 242, 395, the Casa de Mesa, 1357.

[3] At the Alhambra, J. & G., I, xxviii–xxx.

[4] Cf. *Illum. Manuscripts in the British Museum*, Series I–IV, Bedford Horae, *c.* 1423; Horae of Savoy, after 1450; of Charles the Bold, 1473. For Spain, culminating in the missal of Card. Ximenes de Cisneros, Dominguez de Bordoña, *Manuscritos con pinturas*, i.

Shiʿism to the Nasrids on account of the infringements of Muhammad's ban upon the figure delineations exhibited at the Alhambra would agree with historical fact as little as a supposition of Shiʿite tenets in regard to the orthodox Khalif of Cordova, Abd ar-Rahman III, on the score of what is told of Medina az-Zahra by Ibn al-Khatib.[1] Where, as a rule, all is taken for granted regarding artistic manifestations of this type, it is as well to recall that, whatever the degree of doctrinal disunion obtaining during the half-century or so of regionalism that followed the disruption of the Western Khalifate, the formal (Sunnite) orthodoxy of the paramount Hispano-Moresque dynasties of subsequent date is amply attested.

A brief review of the principal facts that lie at the root of the matter may, at this stage, be useful.

As to the Qur'an of the Prophet Muhammad—surah v, verse 92, gives 'Oh Believers, wine, games, stones set up and divination through arrows are an abomination invented by Satan, abstain from them'. But the extension of *ansab* (i.e. stones set up for libation offerings) to statues is a matter for the equally infallible pronouncements of the *Hadith*[2] the relation of which to the *Sunna* is formulated thus: 'Muhammad's Sunna in the sense of his words, actions and silent approach, is fixed orally and in writing in the Hadith.' Further: 'The people of the Sunna and of the community are those who refrain from deviating from dogma and practice. The expression is particularly used in this sense in opposition to *Shiʿa*.'[3] In a vehement letter of the Almohade *mahdi*, Ibn Tumert, to an Almoravide sultan, Ali bin Yusuf (d. 1143), the primitive Almohade position as to orthodoxy is no doubt summed up: 'He who neglects one command of the *Sunna* is as though he neglected it entirely.'[4]

But the orthodox (Sunnite) doctrinal profession had become connected with a Khalifal succession of contested validity. As critical of the elective representation of the Prophet held by the first three Khalifs after the death of Muhammad (d. A.D. 632), and of their successors, the Umayyads of Damascus (661–750), the Abbasids of Baghdad and Samarra (750–1258) and the latter's rivals the Umayyads of Cordova (912–1030), the Shiʿites were the 'Partisans' of the hereditary right of Fatima, favourite daughter of Muhammad and wife of his nephew, the fourth Khalif, Ali, murdered in 661. The marriage of their younger son, Husein, to Harar, otherwise Shar-banu, one of the two daughters of the last Sasanian king, Yezdegird III, slain 652, thus brought the innate Iranian predilection for the delineation of men, animals, and monsters into alliance with the descendants of the aforementioned Ali, claimed for progenitor by the Fatimids of Tunis, Egypt, and Syria (969–1171), and other *Alids*. This scantiest outline of the doctrino-political basis involved gives no idea of the complex history of a movement, the, sometimes anomalous, operation of which dates no earlier than the tenth century. The first Shi'ite dynasty was that of the Idrisids, of Morocco (788–985).

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[1] Ed. P. de Gayangos in *History of Mohammedan Dynasties in Spain*, iii, 236. For the palace of the Tree under Muktadir, Le Strange, *Baghdad during the Abbasid Caliphate*, p. 256; both tenth-century instances. The Cordovan ivory workshops were presumably housed in the palace of Medina az-Zahra. Marq. de Loyoza says of the Umayyad silks (of Almeria?) that animal forms are often, the human figure rarely, represented, *Hist. del arte hispánico*, i, 265, 268–91; for a series of stuffs with animate form delineations, cf. A. F. Kendrick, *Textiles in Spanish Art* (Burl. Mag. monograph), p. 59, pls. 1–5, 8.

[2] For the proscription contained in the various collections of which, cf. Wensinck, *A Handbook of Early Muhammadan Tradition*, p. 108, *sub* Images—'Muhammad curses those who make—' (etc.). As to the primitive Arabian idols, cf. Palmer's Introduction to *The Qur'an*, Sacred Books of the East, vi, pp. xii, xiii.

[3] *Enc. of Islam*, iv, 555, 556.

[4] *Documents inédits d'histoire Almohade*, pub. et trad. par E. Lévi-Provençal, p. 18.

On the important question of what may be termed the practice of incongruous Animate Form figuration among a Sunnite population it will be sufficient to cite the late Sir E. Denison Ross on the frescoes executed for an Umayyad at Qusayr Amra in the eighth, and for an Abbasid at Samarra in the ninth century. 'These discoveries prove that from the very outset of Islamic history the Court at any rate ignored the Semitic inhibition.'[1]

Between the abolition of the Umayyad Khalifate of the West, in 1030, and the fall of the Eastern Khalifate to the Mongols, in 1258, there is recorded the acceptance of a style or title of temporal sovereignity by Almoravide, Huddite, and Nasrid Sultans, from Abbasids with absolute pretensions as *khalifa* (Vicar of God on earth), *imam* (exemplar or Pontiff), and *amir al-mu'minin* (Commander of the Faithful). As the ultimate historical basis of an assessment of dynastic practice where animate form representations are concerned, such allegiances may not be ignored.[2] Later on, Nasrid acknowledgement of doctrinal dependence upon an orthodox head is conformed in 1308–9 when Sulaiman of Morocco and Muhammad III of Granada issue coins with a joint superscription styling the former *amir al-mu'minin*, the latter, *amir al-muslimin* (Commander of Muslims)—the 'sub-khalifal' title that had been conferred by Al-Muktadir of Baghdad upon the Almoravide, Yusuf bin Tashfin, before his Spanish victory at Zalaka, 1086; as by Al-Mustansir upon Ibn Hud of Murcia and Andalusia, 1233–4, and also upon Muhammad I al-Ahmar, founder of the Nasrid line, in 1238.[3] Here the Marinid dynasty of Morocco is seen in the role of successor to a Western Khalifate after the short-lived revival of the latter, 1150–1235, by Abd al-Mumin, the Almohade, and its eventual devolution to the Marinids through the Hafsids of Ifriqiya and the Maghrib who as lieutenants of the Almohades were designated heirs of the Abbasids after the fall of Baghdad. The case of Sunnite Granada would indicate that, so far as its own art derived from that of the Almohades, it is likely to have inherited from the latter no animate form ingredient. What is termed the Almohade reform brought rectilinear ornament into prominence, to the exclusion of animate figurations. But no evidence of the employment of such compositions appears under the preceding dominion of the Almoravides, and little later in date than is supplied by the palace art of the Cordovan ivory-carvers (figured examples, A.D. 960–1001). Marqués de Lozoya instances the trough or tank in the Jativa museum with ornamental carvings that include animal and human figures as betraying plant-form in the Aljaferia or *taifa* style. It is doubtless the most important piece of Spanish Muslim sculpture, being rendered perhaps from an ivory casket.[4] The still mysterious Almoravides have not escaped the charge of mere lip service to the Sunnism they professed, and their literal interpretation of the Qur'an in passages referring to the divine attributes was condemned by the Almohades as leading to anthropomorphism. Their ineffective resistance to the Almohade onslaught is attributed to a speedy enervation wrought by Andalusian refinement. A brief Spanish dominion (Seville, 1091–1146) was for the Almoravides the sequel to a lifetime, almost, of Holy War waged in their progress under Yahya and Yusuf ben Tashfin from the Senegal and south-west Sudan with its crafts and fetishist art to the splendour of Abbadite Seville. In Edrisi's day the Muhammadan king, of the Alid dynasty of the Beni Salih that had been set up at Ghana in the Western Sudan by the Almoravides in 1067, dwelt in a fortress, built in 1116, that had glass windows and an interior decorated with sculptures and paintings.[1] Nor, within the framework of twelfth-century Muslim art, is the material for a final comparison between the aesthetic standards of the Saharan Almoravide and of the Almohade, an Atlas Berber, yet exhausted. What the early Almohades reprobated as an Almoravide abomination, from the standpoint at issue, was apparently nothing more serious than ensued from capitulation to the *taifa* aesthetic, whether in architecture or decoration.[2] There is the story of the precaution taken on the eve of the Almohade entry into Fez, 1145, when the *imams* of the Qarawiyin mosque proper, built by Ali ben Yusuf, the Almoravide, son of Tashfin, fearing a condemnation of the *mihrab*, covered with paper certain ornament in gold, azure, and other colours, later coating the niche with plaster: the Faithful (it was alleged) could not but be distracted by the decoration, such was its beauty and precision.[3] The Qarawiyin is still, or was until recently, closed to non-Muslims.

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[1] 'The Origins of Persian Painting', *Apollo*, x, 315. For the earlier literature of the subject, cf. K. A. C. Creswell, F.S.A., *A Provisional Bibliography of Painting in Muhammadan Art* (to 1919; privately printed).

[2] The numismatic styles carrying the clues to these allegiances are summarized as regards Western Islam by M. van Berchem, 'Titres califiens d'Occident à propos de quelques monnaies mérinides et ziyannides', in *Journal asiatique*, 10 Ser. ix, 245.

[3] B. and E. M. Wishaw's ascriptions of Shi'ism to Muhammad al-Ahmar of Granada, to the Abbasid Khalif Al-Mustansir and the Almoravide Sultan, Yusuf bin-Tashfin, are entirely erroneous, *Arabic Spain*, pp. 292, 280, 251; cf. p. 286 note.

[4] Marq. de Lozoya, i, 255, fig. 319. Sarthou Carreras, *Datos para la hist. de Jativa*, i; *Museum*, vi, 230.

The cause of Granada's animate form representations—mere accretions as they appear to the decoratively orthodox fabric (*immeuble*) of the Alhambra, is then attributable to (i) the operation of lax Sunnism on the part of the rulers; (ii) the general decline from orthodoxy in respect of such figurations that was observed by a Muslim visitor to the city in 1363. Ibn Khaldun describes the contemporary display of pictures or images on the walls of its houses and palaces as being, to the discerning eye, an extreme instance of a people's imitation of the customs of a neighbouring dominant civilization.[4] Among the more important animate form representations that it is possible to connect with the Nasrid dynasty and its court, to say nothing of the talismanic hand—which appears also upon the vases found at El Salar (now at Leningrad) and Jerez, both of the Malaga group—as sculptured over the inner façade of the Gate of Justice, are:

The stone cistern with reliefs of lions devouring stags and eagles, an Umayyad work from Medina az-Zahra (now exhibited in the Hall of Justice), its inscription recut for Muhammad III of Granada, A.D. 1301–8.[5]

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[1] Edrisi, *Géographie* (11^{54}), trad. Aubert, i, 18. Ghana, under the fetishist king Tenkhamenin, is described as comprising two towns, one royal, containing the idols, the other Muhammadan. The buildings were of stone and acacia wood. Al Bakri, *Descr. de l'Afrique septentrionale*, trad. De Slane, p. 381.

[2] For architectural ornament under the Almoravides, Marçais, *Les Monuments arabes de Tlemcen*, cap. iii; Terrasse, *L'Art hisp.-moresque*, p. 230, pls. XLIV (*b*), XLV, and fig. 38; Maslow, *Les Mosquées de Fez*, pp. x, xi, 165, pls. L–LVI, fig. 140; Marq. de Lozoya, i, cap. ix. For the Huddite Aljaferia at Saragossa, Gascon de Gotor, in *Museum*, vi, 79; Terrasse, *op. cit.*, pp. 200, xxxviii–ix; De Lozoya, i, 232, figs. 290–5.

[3] *Rawd al-Qartas*, of Ibn abi-Zar, ed. Beaunier, pp. 78–9; Spanish ed. Huici, p. 59.

[4] Quoted by Simonet, *Cuadros histor. y descr. de Granada*, pp. 178–9, from Ibn Khaldun's *Prolegomena*, the Arabic text, ed. De Slane, p. 267.

[5] Migeon, *Manuel d'art musulman*, ii, fig. 87; Marq. de

The great marble fountain supported by twelve *lions statant* in the local Elvira limestone, that supplies a designation for the principal court of Muhammad V's palace.

The two larger, similarly treated *lions sejant* in marble from the same sultan's hospital, later the Spanish mint, at Granada, and now located at the Portal (*el Partal*) within the Alhambra precinct.[1]

The roof painting of ten Moorish magnates—Sultans of Granada—and the two European figure compositions in the Hall of Justice or, of the Kings, itself assigned to the second part of the reign of Muhammad V, i.e. 1361–91.[2] If the magnates represent the first ten legitimate rulers of the Nasrid line, the painting should date from the twelfth sultan, Muhammad VII, 1391–1407, omitting from the series the ninth and tenth, Ismael II and Muhammad VI, neither of whom was an ancestor in the male line of Muhammad VII, whose grandfather, Muhammad V, suffered their usurpations.

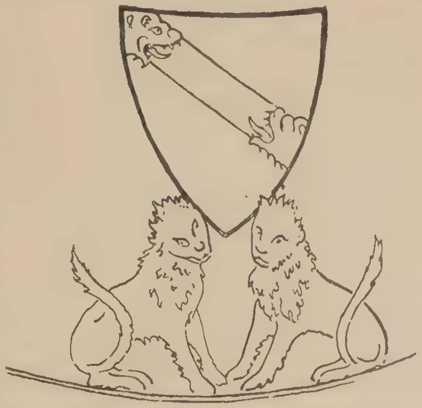

FIG. 4. Arms accompanying roof painting of Nasrid Sultans, Hall of Justice, Alhambra. *c.* 1400

Attribution to the Nasrids of the arms—*Gules a bend or engouled of dragons' heads* (*ppr.*? for *vert.*?), that in two places accompany these hieratic effigies, displayed in either case above a pair of *lions sejant affronted ppr.* (fig. 4), cannot fail to excite scepticism, the facts alleged concerning their adoption by the first Nasrid dynast being subject to vital objection of a chronological nature. The traditional account, as formulated by Diego Hurtado de Mendoza (d. 1575) in his *Guerra de Granada*, that the king, Saint Ferdinand III of Castille, granted the coat to Muhammad al-Ahmar when he conferred knighthood upon him on the occasion of the Castillian entry into Seville, 22nd December 1248, already impugned over a half-century ago by José Amador de los Ríos,[3] has been further contested by the late Don G. J. de Osma, in a criticism applying categorically to any alleged grant of arms comprehending the *Banda* of Castille to a Nasrid sultan, that will be quoted later in connexion with the bend, inscribed or not, attributed to different rulers of the line. Meanwhile with regard to the importance attachable to Hurtado de Mendoza's evidence for a coat which is the first of the three versions of Nasri heraldry encountered here (the second and third will be the plain bend upon the Albaicín tile, and the inscribed coat upon the vase, Granada II, respectively) it appears that in his case the bearer of a name famous in the annals of Spanish feudalism might be of no armorial discrimination whatever. One thing, within his experience, he records, i.e. that the arms he alleged were granted to Muhammad al-Ahmar were those borne by the kings of Castille upon a flag of special shape, which he rightly calls their *guión*. When, however, he goes on to say that

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Lozoya, ii, 255, fig. 317; Terrasse, *L'Art hisp.-mor.* p. 166, note 2. For similarly figured tanks at Marrakesh with inscriptions referring to Amirids of the reign of Hisham II of Cordova, cf. Gallotti, in *Hespéris*, iii, 363, pl. III, and Terrasse, *op. cit.*, pp. 167, xxxvii; at Madrid, Mus. arqueol., of which that at Granada is a copy, *Hespéris*, iii, 380, 381, fig., Terrasse, p. 167.

[1] Almagro Cardenas, p. 74, photogr.

[2] Post, *A History of Spanish Painting*, ii, 160, figs. 136–7; Lozoya, ii, 370, figs. 392–4. For the coloured copies (made between 1834 and 1837) of these since sadly deteriorated works, the painting of the 'Kings' especially, J. & G., i, pls. XLVI–XLVIII.

[3] 'atribuyé á San Fernando emblemas no usados hasta el siglo XV.' J. Amador de los Ríos, *Trofeos militares de la Reconquista*, 1893, p. 202 note.

al-Ahmar added to them the inscription in blue: There is no conqueror but God, he propounds a coat without example in the Nasrid armory, and of which the existence has never been chronicled. Some further remarks of Hurtado de Mendoza suggest that his principal *pièce* of a material kind may have been these *Banda* shields in the Hall of the Kings, upon the adjuncts to which he puts the most improbable interpretation—that Muhammad al-Ahmar took for crest (*timbre*) two crowned lions that sustain a shield upon their heads. They (*los Moros*) bear a crest below the arms, as we do above them. This the *sitios*, which I suppose to mean the places (e.g. the Hall of Justice) record and show. *Guerra de Granada*, Lisbon (original) edn. 1627 (lib. ii, 45 v.). The argument, as regards the blazon, is repeated by Diego Ortiz de Zúñiga, in his *Anales eclesiásticos y seculares de Sevilla*, Madrid, 1677 (19), with the difference that dragons [*sic*] or heads of serpents, are the alleged supporting members.[1]

We have here in all essentials the arms or shield itself of the already mentioned Order of the *Banda* (Sash, also *Escarpela*, Scarf), founded by Alfonso XI in 1330,[2] which appear to have been set among the figures of the Sultans of Granada in token of the overlordship of Castille, under an easily accountable misapprehension of their real status. For the shield of the *Banda* when under John II, 1407–54, it assumed the character of the royal device, with a separate standard, in nowise supplanted, though in battle array at the head of its company of knights it accompanied, the banner of the monarchy, the *pendón real*. The known history of the *Banda* shield, the *Banda* supported by dragons' heads (*cabezas de dragantes*) finds illustration in the gold coinage (e.g. *doblas de la Banda*) of John II[3] and in the arms upon that monarch's tomb at the Carthusian church of Miraflores, his own foundation. Here the insignia consist of quasi-coupled shields: *Castille and Leon quarterly*, *supported to dexter by a crowned lion rampant*; and the *Banda* shield as above blazoned, with its *lion supporter to sinister*. *Sejant* lions may be instanced as supporters of the arms of John's son and successor, Henry IV of Castille (pl. XIX *a*), that accompany his portrait in the diary of Jörg von Ehingen (d. 1467), at Stuttgart (former R. Library Hist. MS. 141).[4] Certain coins—the *doblas* of Henry IV of Castille, 1454–74, show the same shield, the *vellones* a plain, unsupported *Banda*.

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[1] The shields of this type displayed in the Alcázar of Seville have the *Banda sable*, the dragons' heads *gules*, the field *argent*. This, at a time (reign of Peter I, the Cruel) when the insignia of the Order consisted of a *Banda or* upon a surcoat *gules* ('sobreseñales bermejas con Vanda de oro'); an exact reversal of the tincturing of the *Banda* arms or shield depicted on the original Statute book of the Order, as reported by Argote de Molina: *or* a *Banda gules engouled of dragons' head vert*. Motto: Fe y Fidalguía. Cf. Informe propuesto á la Comisión Provincial de Monumentos históricos acerca del significado de los blasones de la Banda . . . en el Alcázar de Sevilla. Por Don F. Caballero Infante y Don J. Gestoso y Pérez, Sevilla, 1896.

[2] Cf. G. J. de Osma, *Apuntes sobre cerámica morisca*, III. Las Divisas del Rey . . . 1909, pp. 40–8 (esp. 45), the most critical account of the *Banda* whether as to the sash itself, or the shield and banner of the Order. Here I would note the somewhat confusing but real distinction that was in practice involved by (*a*) the official *Banda* shield as above, and (*b*) the *Banda* insignia as figured with the arms of individual knights of the Order, i.e. *a narrow filet in bend, or bendlet*, *gules* (resembling the sash as worn over the r. shoulder and beneath the l. arm) *upon a shield or*. An instance of the usage (*b*) occurs as to the Henriquez arms, accompanied by a gold shield and the red bendlet, upon the armorial carpet from the convent of Sta. Clara, Palencia; *Burl. Mag.* xix, 348 and 311, col. pl. Shields of type (*b*) make an unexpected appearance upon the frieze below the painted ceiling of the Hall of the Kings in the Alhambra, J. & G., i, pl. xlvi.

[3] Heiss, *Descr. de las monedas hisp.-crist.*, i, pl. 11, nos. 1–3, 7; pl. 16, no. 51; text, pp. 91–106.

[4] For a clearer reproduction see Malcolm Letts, F.S.A., *The Diary of Jörg von Ehingen*, 1929.

The wall-paintings of Moorish raiding parties, discovered in a house at the Portal in 1907, are instanced by the Marqués de Lozoya as the only surviving example of the practice, Ibn Khaldun's comment upon which has already been quoted. If coeval with the structure in which they are represented, these paintings may be dated to the reign either of Muhammad IV, 1323–33, or of Yusuf I, 1333–54. The figures include mounted and foot troops, captives, an encampment, camels, pack animals, a lion, in fact a wide range of figure delineation and an invaluable, if damaged record of a phase of frontier life in Spanish Moordom.[1]

The enamelled and lustred plaque (Inst. de Valencia de D. Juan; pl. XVIII) from a house in the Albaicín suburb of Granada,[2] has an inscription referring, it is claimed, to Yusuf III, 1409–18, and not as was formerly thought to Yusuf I, of Granada, 1332–54. Birds of two kinds—peacocks and swans (?)—contribute animate form, while twelve large-scale, plain leaf-shapes (cf. forms 2, 3) have each a dragon's head termination. Arranged as fleurons, two pairs of these forms enclose Nasrid shields of simpler type, but still of unknown inception by the dynasty, the bends uninscribed—the whole being part of a realistic floral composition that includes six-petalled rosettes and various leaves, among them a prototype of the 'bryony' of fifteenth-century Valencia. The curved strapwork of the frame has, beside fillings of plain leaves and rosettes, six Nasrid escutcheons, also uninscribed, from whose chiefs and flanks project fleurons simulating the top and lateral extremities of the *cross flory*,[3] borne in the same position by members of the Castillian military orders. The identification of the *Abu 'l-Hajjaj* of the sixfold inscription with Yusuf III, 1408–17, by Don G. J. de Osma[4] revising Charles Schefer's ascription to Yusuf I,[5] was explicitly based upon the palaeographical and foliage details of the composition, but apparently overlooked his previous dating of the shield shape with parallel sides and pointed base, seen on the plaque, as indicating, in Castille and Andalusia, a period extending from 1334 into the second half of the fourteenth century, in the course of which the chief broadened and the shield became definitely triangular.[6] An arbitrary crystallization of this particular shape may well have to be allowed for, in dating the few distinct manifestations of Nasrid armory of the more deliberate kind.

Here may be mentioned the fragments of tiles of the opposite armorial category. The plain bend, upon crowned or simple shields, is supported by human figures, dragons, or swans, a diversity that betrays its own unofficial and primarily decorative character. The dragons in this instance support a shield the bend upon which bears traces of the obliterated motto.[1]

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[1] Gómez-Moreno, *Pinturas de moros en la Alhambra*, 1916; De Lozoya, ii, 426, figs. 451, 452.

[2] A fragment of a similar plaque is reproduced by Rivière, *La Céramique dans l'art musulman*, ii, pl. 92. The Albaicín plaque measures, height 90 cm.

[3] Signs that an incongruous completion of one of the six crosses, by means of its lower fleuron, was avoided are perhaps visible in the central shield on the spectator's left.

[4] Into whose collection the plaque passed from that of the duke of Dino in 1894. It is mentioned in a letter of 1871 from its then owner, the painter Mariano Fortuny, to Charles Davillier (*Fortuny, Sa Vie, son œuvre*, p. 70). Cf. Henri Regnault for events in the Albaicín in 1869, *Correspondence*, p. 308.

[5] The sale catalogue, *Atelier de Fortuny . . . Notices par . . . Baron Davillier*, 1875, p. 99, no. 44; p. 101, gives Schefer's attribution of the reference in the inscription to Yusuf I, the Abu 'l-Hajjaj of 1332–54. The sultan's name is not given. For the equation Abu 'l-Hajjaj = Yusuf, cf. A. de Longpérier's memoir, 'Vase arabo-sicilien de l'œuvre Salemon', *Œuvres*, i, 495. The revised ascription to Yusuf III, 1408–17, appeared in Henry Wallis, *The Oriental Influence on the Ceramic Art of the Renaissance*, xxvi, fig. 42, 1900, and later in G. J. de Osma, *Apuntes*, i, 35, 1906, from which I translate. 'There is no room for doubt that Yusuf III (who reigned from 1409 till 1418) is mentioned in the great tile which, from a courtyard in the Albaicín, became part of the Fortuny Collection.'

[6] *Azulejos sevillanos del siglo XIII*, 1902, 46; 45, no. 7.

The so-called Las Navas banner, which is a Nasrid ensign, rather than a trophy of the great Christian victory of 1212, displays on a very small scale three purple lions, one on each side of, and one below, the main design.[2]

A portrait described as 'a Moorish king or prince, by John van Eyck, the first painter in oils', with the doubtful date 1414, that belonged in the late seventeenth century to a picture dealer with a Portuguese name, Diego de Duarte, probably represented either the usurper Muhammad IX (1427–9), or else Muhammad VIII (restored 1429) of Granada, or a relative. It was in the spring of 1429 that the Burgundian embassy to Portugal, to which John van Eyck was attached, visited Santiago de Compostela, John II of Castille, the duke of Arjona (Andalusia; who was also High Verger, *Pertiguero mayor*, of Santiago), and Muhammad, 'king of the city of Granada'.[3]

4. GRANADA II: THE ARMS, *A RUEDA*

In contrast to the arms depicted in the ceiling of the Hall of Justice, and to the uninscribed bend seen in the decoration of Alhambra apartments of the reigns of Yusuf I and Muhammad V alike, those of Granada II (pl. XIII *b*) may be described—irrespectively of their occurrence also throughout the Alhambra of the said two sultans—as the version of the Nasrid insignia the use of which by the dynasty is to any extent independently corroborated. As will be seen, moreover, the compositions that encircle the Nasrid coats on Granada II were strongly influenced by contemporary usage in regard to certain figurations of the arms of Castille. As recording the Nasrid armorials in this particular form the print of the *Antigüedades árabes* is no doubt unique.

As to the adoption by the Nasrids of arms of European type, however natural and inevitable even the contingency, the most peculiar feature appears to have been that it was the only case of its kind recorded of the sultanate; among, that is, a numerous aristocracy of Spanish Muslims which, if constantly recruited from beyond sea, was in actual contact, warlike and the reverse, with the knighthood and nobility of Castille, the adepts in a vigorous armory that by reason of its comparative freedom from the minuter signs of individual identification or 'differencing', might have been supposed to recommend itself to orientals. As it is, the indigenous Nasrid armory must be sought in the essentially Muslim dynastic colour system, the practice of which in the Peninsula is after all mainly recorded in the homages paid variously to Abbasids (black), Ummayads (white), Almohades (white), as well as in the tincturings more obscurely attributed to the Almoravides (? green; cf. *Chronicle of the Cid*, book V, cap. xxv) or individual Marinids (green, orange). The use, in the dynasty founded by Muhammad I al-Ahmar (the Red), of the said colour, whether it can be truly affirmed of the founder himself or not, is unquestionable, as is also the cognizance-like display of the lion as statuary at Granada. José Amador de los Ríos, in demonstrating the only significance attachable to the small purple lions and the red centre of the Banner so-called of Las Navas, epitomizes the original Nasrid armory. As has previously been suggested when considering the so-called Nasrid arms in the Hall of Justice at the Alhambra—in other words, to the dynasty's possession of arms of European type—it will be sufficient to recapitulate what was pointed out by Señor de Osma about the long accepted tradition deriving the Nasrid bend from a grant made by Ferdinand III of Castille and Leon to Muhammad al-Ahmar who, with his forces, in 1248 attended the saint-king at the siege of Seville—to which bend the Moor subsequently added the motto *And there is no conqueror but God!* This is to all appearances a legend which was incorporated into the 'Chronicle of Spain' when it was recast, re-edited, added to and printed under the Emperor Charles V in 1526, when the *Banda* had become distinctive of the *guión real* itself. St. Ferdinand might confer knighthood upon his ally, but could not, in any case, grant to him a *banda* instituted later (1330) by Alfonso XI. Such a concession might be made at any time under his successors to a vassal of Castille: that it was is unrecorded. Señor de Osma continues: The representation of the Nasrid motto upon a bend within shield-shapes corresponding to the last third of the fourteenth century (cf. pl. XVIII *c*) is possibly unknown until towards the end of Muhammad V's reign [his second or restored reign was from 1362 till 1391]: the bend afterwards appearing, even without the motto, in the first years of the fifteenth century, early in the reign of John II [1407–54, cf. the Albaicín tile (pl. XVIII *a*)], when it has to be considered whether the relationship of the one and of the other *banda* might be, not that of a concession by one monarch to another, but instead, of the suggestion of an attribute of royalty, exercised by the Castillian device, owing to its figuration upon the royal seal, as in the coinage.[1]

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[1] Published by Gómez-Moreno, *Homenaje á D. Fernando Codera*, pp. 268–9; and by Torres Balbás, *Archivo esp. de arte y arqueol.* vii, 205, 199, 207.

[2] For the 'Pendón de las Navas', J. Amador de los Ríos, *Trofeos militares*, pp. 27–48, 83, 84, 196, pl. (i), and reproduced in colour, A. F. Kendrick, in *Spanish Art* (*Burl. Mag.* monograph), Textiles, p. 68, pl. 11.

[3] Weale and Brockwell, *The Van Eycks and Their Art*, p. 199.

There follows the question how far the versions of Arabic script upon Granada II (pl. XIII *b*) convey anything to the expert. On this point I am indebted to the distinguished Arabist, the late Mr. Rhuvon Guest, M.R.A.S., for his remarks, as follows:

> It seems to me probable—perhaps one might say almost certain—that the mottoes, not only on the three bends, but also on the three sections of the circular band broken by the fleurons, are all of them the same, being derived from the *wa lâ ghâlib illâ 'llâh* of the Nasrid sovereigns. In every case the last word of the simulated inscription seems to be taken for the Arabic for *'llâh* with little alteration and the first word appears to be recognizable as *lâ* or *walâ*. I do not recognize *ghâlib* in full anywhere, but as the second word I find what seems to be a corruption of *ghâ* or *qâ* presumably standing for its first syllable, and the third word seems to be *illâ*, generally debased to a considerable extent. The pseudo-inscriptions of the centre band have their bases towards the centre of the circle which the band forms.
>
> The pseudo-inscriptions round the two side shields . . . give the general effect produced by an Arabic inscription.

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[1] G. J. de Osma, *Apuntes*, *op. cit.* iii, 45–8. If the *Banda* records are not free from contradictions, the scarf or sash worn by knights of the Order being apparently of different colours at various times, neither can the names of Spanish flags be characterized as anything but confusing. The Chronicle of John II refers to a *pendón real* (of the arms of Castille and Leon) and an *estandarte de la Banda* which, *temp.* Ferdinand the Catholic, had become the *guión de la Vanda Real de Castilla*, the ensign of the sovereign as bearing his personal device. It is noteworthy that a trick of the *Banda* shield in the 'Libro de Camara' of the Infante D. Juan, 1503, shows the *banda adragantada* in black on red ink (note 3, p. 48, cf. the tincturing of the armorial roundels in the Alcázar of Seville, *temp.* Pedro the Cruel).

An almost contemporary record of the Nasrid arms: *Or on a bend gules the motto in naskh characters* (*azure*?): *wa lâ ghâlib illâ 'llâh* (And there is no conqueror but God) (cf. fig. 26) is found in the diary of Hieronymus Münzer (Monetarius), who visited Granada in October 1494, less than three years after the fall of the city and capitulation of Muhammad XI to Ferdinand and Isabel. Münzer's guide and informant at the Alhambra on the 23rd of the month was no less a personage than Don Iñigo López de Mendoza, second count of Tendilla, the first Spanish governor of the Alhambra, who had assisted at the surrender of the stronghold on 2nd January 1492.

Münzer, who apparently expected to find displayed at the Alhambra the arms borne in the coinage of Henry IV of Castille as suzerain of Granada, and assumed in the point of their achievement by the Catholic Monarchs after the conquest of 1492, relates that he inquired of the governor as to the arms of the King [of Granada], whether he also had a pomegranate for arms, and if his arms were represented anywhere. The reply was:

> he had no other arms than a shield of this shape, in the centre of which is written in their characters: *Hile gallila*, that is *Nullus victor preter Deum*; or, *Solus Deus omnia potest.* And those arms were depicted in blue in different places.

A trick of the arms in the lower margin of this page is described by the editor of the manuscript as an 'ordinary' shield charged with a narrow bend with some fanciful flourishes intended to represent the Arabic inscription.[1] Clearly, blazon was not Münzer's strong point. He did not omit an allusion, however, to the beautiful small royal mosque of the Malaga citadel and its excellent 'mosaic' work in the manner of the Saracens (*praeclara monumenta ex opere musico* [*sic*] *more Sarracenorum*).[2]

One is reminded of the plain red flag with its imperfect but sufficiently recognizable Arabic (in gold) for the Nasrid motto, given for Granada, in the 'Libro del Conocimiento', that armorial of interesting, if often garbled coats.[3]

The circles with inscriptions, as the 'surrounds' of the Nasrid shields on Granada II have been termed, combine with the arms to indicate an adaptation in greater or less degree to the form of the so-called wheel sign (*signo rodado*, otherwise *rueda*) which, from the thirteenth century till the days of Ferdinand and Isabella, was the validating mark of charters granted by sovereigns of Castille. The *rueda*'s second stage of evolution, which here concerns us, was reached under Alfonso X, the Wise

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[1] Itinerarium hispanicum Hieronymi Monetarii, 1494–95, Munich, cod. lat. 431, ed. L. Pfandl, f. 140, in *Revue hispanique*, xlviii, 47. The latin text runs: 'Quesivi autem a castellano de insigni Regis, an etiam pomum granatum pro insigni haberet, et an alicubi insigne suum depictum esset. Qui respondit, quod nullum insigne haberet, nisi clipeum ad formam illam, in cuius medio scriptum esset litteris eorum: *Hile gallila*, id est: Nullus victor preter Deum; Solus Deus omnia potest. Et illud insigne in variis locis pictum erat coloris celestini. Münzer and his party, who were given letters of introduction by the governor of Almeria, a Neapolitan, were received with marked distinction by Tendilla. At an audience granted by Ferdinand and Isabel at Madrid in January 1495, Münzer in his oration refers to his journey to Spain from Germany as 'favore serenissimi regis nostri Maximiliani' (127).

[2] For *musico* read, of course, *musivo*—denoting a fictile inlay, here with undoubted reference to ceramic incrustations and tilework. Itinerarium hisp., *op. cit.*, f. 156, in *Rev. hisp.* xlviii, 70. His account of the Valencian industry is moreover confirmed, at several points, by the local documentary evidence, e.g. the manner of packing the wares for export, the cities whither exported, the opulence of the potters, etc., *op. cit.*, f. 25; *Rev. hisp.* pp. 26–7.

[3] *The Book of the Knowledge of all the Kingdoms . . . of the World* (*etc.*). Written by a Spanish Franciscan in the middle of the fourteenth century. Translated and edited by Sir Clements Markham, p. 14, pl. 15, no. 19. (Hakluyt Soc., xxix.)

(1252–84), whose legislation on the nature and redaction of a royal charter is included in *Las Siete Partidas*, to be exact in Partida III, Laws 2 and 3, cap. xviii.[1] During this reign the *rueda*, no longer the product of mere penmanship, became an illuminated roundel of the sovereign's insignia, emblazoned variously in the colours red, green, yellow, blue, and dark purple (*morado*) as well as in or and argent, according to the standing of the grantee. Thus enriched the *privilegio rodado* soon became, among Spanish instruments diplomatic, one of unique decorative effect. An example dating from 1304 (Era 1342) under Alfonso's grandson, Ferdinand IV, of Castille and Leon, may be cited (pl. XIX *b*) for some salient features of arrangement and content that became more or less permanent—the 'wheel', in the centre of the parchment (some 21 × 16 in.) is flanked by four columns of confirmatory names; to the *dexter* prelates and *ricos hombres* or grandees of Castille, to the *sinister* those of Leon, in a separate column to each estate. Across the deed, between the text of 14 lines and the *rueda*, a first line of confirmers' names that include four Infantes of Castille and the archbishops of Toledo, Santiago, and Seville, is headed by *Don Mohamat Abennazar, Rey de Granada, vassallo del Rey* (i.e. Muhammad III). At the foot, those of the *Justicia mayor* and four other high dignitaries are appended. The *rueda* itself has the arms of Castille and Leon quartered by a cross flory voided within two rings or circular bands. The inner is inscribed in Lombardic characters: SIGNO DEL REY DON FERNANDO; the outer recites the names and styles of two officials of the royal household, the Standard Bearer and the Master of the Palace:

DON DIAGO SENOR DE VIZCAYA ALFEREZ DEL REI CONFIRMA
DON P(E)DRO PONZ MAYORD(O)MO DEL REY CONFIRMA

The *signo rodado* has recently advanced from a sparse illustration in palaeographical literature into art history, but as yet the designs and inscriptions of the great store of examples dispersed among the public and private archives of the Peninsula, many of which must have perished in recent times, have, the writer believes, elicited nothing of the nature of an exhaustive survey. The still indispensable introduction to the subject by Escudero de la Peña will be referred to below.

This limitation bears upon our inquiry so far as concerns the Nasrid ceramic *rueda*'s presentation of a shield shape, and the Castillian *rueda*, on the other hand, of arms in roundel form until 1474 and the joint rule of Ferdinand and Isabella of Castille as sovereigns of Castille and Leon. During that reign the insertion of a capacious shield shape into the circle gave the space requisite for the *Counter-quarterly of Castille and Leon, with Aragon and Sicily per pale* (pl. XIX *c*), that were in 1475 constituted the arms for the united crowns.[2] As to the chronological relationship of the arms on Granada II, in the detail of the shield shape, to the Spanish shields of the late fifteenth century it would appear that such a base would be exceptional as an imitation of a Castillian original earlier than the last third of the century,[1] and the marriage in 1469 of Isabel, then heir-apparent to her brother Henry IV of Castille (1454–74), to Ferdinand, king of Sicily, the dignity ceded to his son by John II of Aragon in 1468.

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[1] *Las Siete Partidas*, Madrid, 1807, ii, 549. 'Que quiere decir privillejo et en que manera debe ser fecho.' Here the *rueda* is designated 'la rueda del signo', and it has 'en medio el nombre del rey quel da' and its 'cerco mayor' must be inscribed with the 'nombre del alférez et del mayordomo, como la confirman'. The code issued, early in Alfonso's reign, in 1258, makes no allusion to arms within the *rueda*. A charter granted by Alfonso X in 1255 contains within the inner band, inscribed SIGNO DEL REY DON ALFONSO, a *cross flory voided*. The confirming vassals include Muhammad I of Granada, and Moorish kings of Murcia and Niebla; cf. Hispanic Soc. of America, *Handbook Mus. and Liby. Collns.*, 354, fig. and sep. pubn. ed. A. D. Savage, 1928.

[2] Reproduced from Escudero de la Peña's article already referred to. The arms, as borne before the addition of the pomegranate in point for Granada, 1492, are charged upon an eagle displayed, and accompanied by the respective

Other criteria there are, however, pointing to the approximate date of the Nasrid ceramic *rueda*, or at least to a Castillian reign within whose limits a Spanish original may have inspired it.[2] The clue supplied by armorial diapering in the fields of the two satellite shields upon the vase—an adjunct that stands out as an instance of imitation, if ever there were one—is here the starting-point. This exotic addition to Peninsular armory can be paralleled in a *rueda* to a charter of John II of Castille in the Municipal Archives of Madrid (pl. XIX *d*), published by Escudero de la Peña in his introduction to the history of the *signo rodado*, the date of which *rueda* he omitted to mention.[3] That the document was granted late in the reign of John II, 1407–54, may be inferred from the names of the confirming officers of the royal household on the outer of the bands that encircle the arms, the inner of which is inscribed:

SIGNO DEL REY DON IOH(A)N
RUY DIAZ DE ME(N)DOCA MAYORDOMO MAYOR D(E)L REY
IOH(A)N DE SILVA ALFERES MAYOR D(E)L REY

Nothing less than a working edition of the Chronicle of John II of Castille, a precious record of one of the longest reigns of the advanced epoch of Spanish chivalry, is required in order to do justice to the chronological limits of the tenure of the offices specified. Using Martínez de la Puente's *Epitome*, 1678, which in a measure atones for the deficiencies of its index by supplying chapter headings in some detail, one finds Ruy Diaz de Mendoza as *Mayordomo mayor*, present at the battle of Olmedo in 1445.[4] In 1426 Juan de Silva, *Notario Mayor* of Toledo, is mentioned as 'afterwards' *Alférez mayor* of Castille and count of Cifuentes.[5] Both personages were, however, in office

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badges of Ferdinand, a yoke, 1 and 4, and of Isabel, a sheaf of arrows, 2 and 3, upon fields *purpure* and *gules*, in the corners of the miniature. Upon the inner band of the *rueda* are the words: SIGNO. DEL. REI. DON FERNANDO: I DE LA. REINA: DONA. ISABEL. The outer gives the confirming official EL MARQUES. DON. DIEGO. LOPES PACHEC(O) MAIORDOMO. MAIOR. DEL. REY I DE LA REINA: CONFIRM(A). This is the second marquess of Villena, to whom his father D. Juan Pacheco had ceded the title of Villena (1445) in 1468, dying 1st October 1474. Fernandez de Béthencourt is less clear as to D. Diego's succession to the office of Mayordomo mayor (Master of the Palace), granted to his father in 1445 and applying to the then heir-apparent, Don Enrique (IV). *Hist. gen. y heráld.*, ii, 164, cf. 196–8, 203.

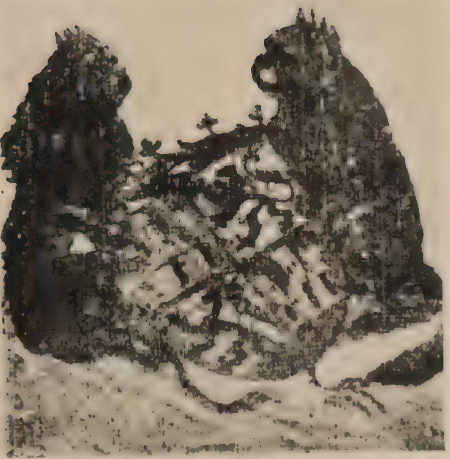
[1] De Osma, *Azulejos sevillanos*, 45, no. 11.

[2] It may be mentioned that neither the Aragonese nor Navarrese sovereigns employed a *rueda* in their charters. The question whether at any period the sultans of Granada are known to have employed such a sign upon their diplomatic instruments is no doubt disposed of by a communication obligingly made to the writer by Señor G. Masa, Director of the Simancas Archivo General, that nothing of the kind exists in that depot.

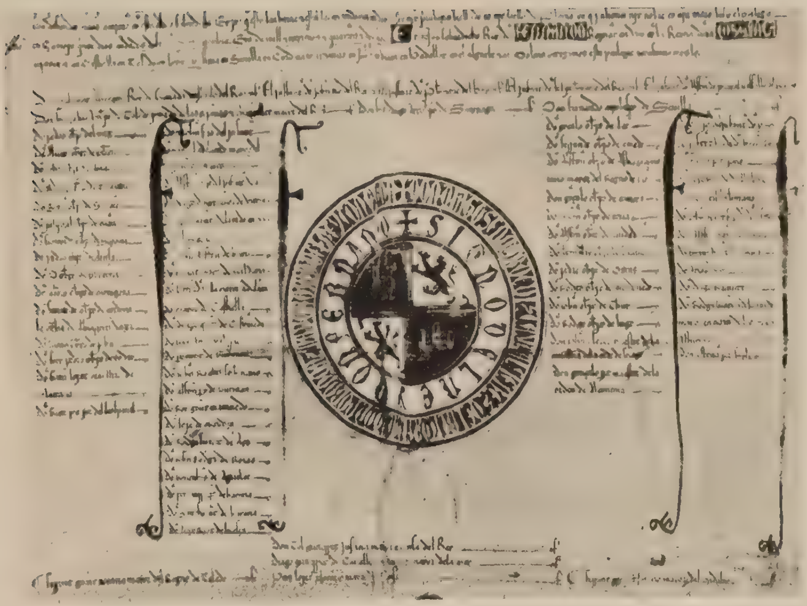
[3] *Museo Español de Antigüedades*, v, 260–1; and for the *rueda temp*. Ferdinand and Isabella, p. 261.

[4] *Epitome de la Crónica del Rey Don Juan el Segundo*, Madrid, 1678, p. 250. He served at the invasion and battle of the Vega of Granada in 1431, also at that of Olmedo, 1445. His son Alvaro de Mendoza was created count of Castrogeriz in 1480, López de Haro, *Nobiliario genealógico*, 1622, pp. 84–5; but this title is given to Ruy Diaz in the *Epitome*, as well as by Imhoff, *Genealogiæ viginti illustrium in Hispania familiarum*, p. 190.

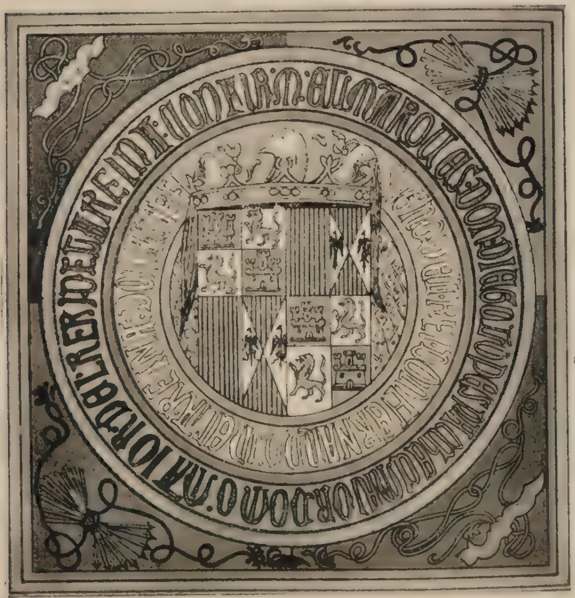
[5] *Epitome*, p. 167. At the invasion of Granada, aforesaid, he is styled by his father's office, 'Notario Mayor de Toledo, que fuė despues Alferez mayor de Castilla, y Conde de Cifuentes.' Juan Alvarez Delgadillo served as 'Alferez mayor' at the opening of the Granada campaign, 1429; he was in office in 1426, and appears to have



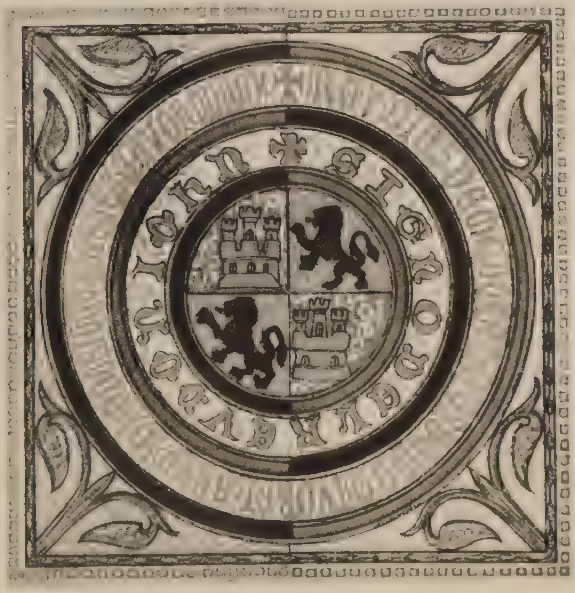
a. Arms of Henry IV of Castille and Leon. 1454–74



b. Privilegio rodado of Ferdinand IV. 1304. Section
(*By courtesy of Messrs. Maggs.*)



c. Signo rodado (*rueda*). Ferdinand and Isabella. 1474–92



d. Signo rodado (*rueda*). John II of Castille and Leon. *c.* 1440–54

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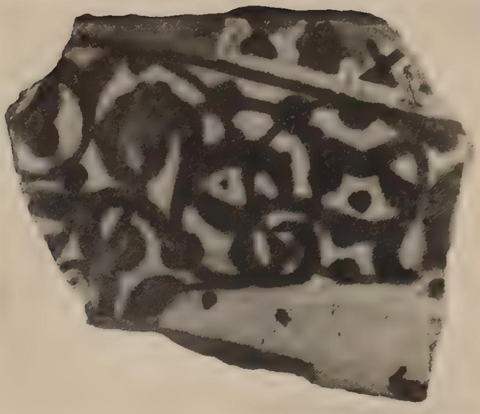
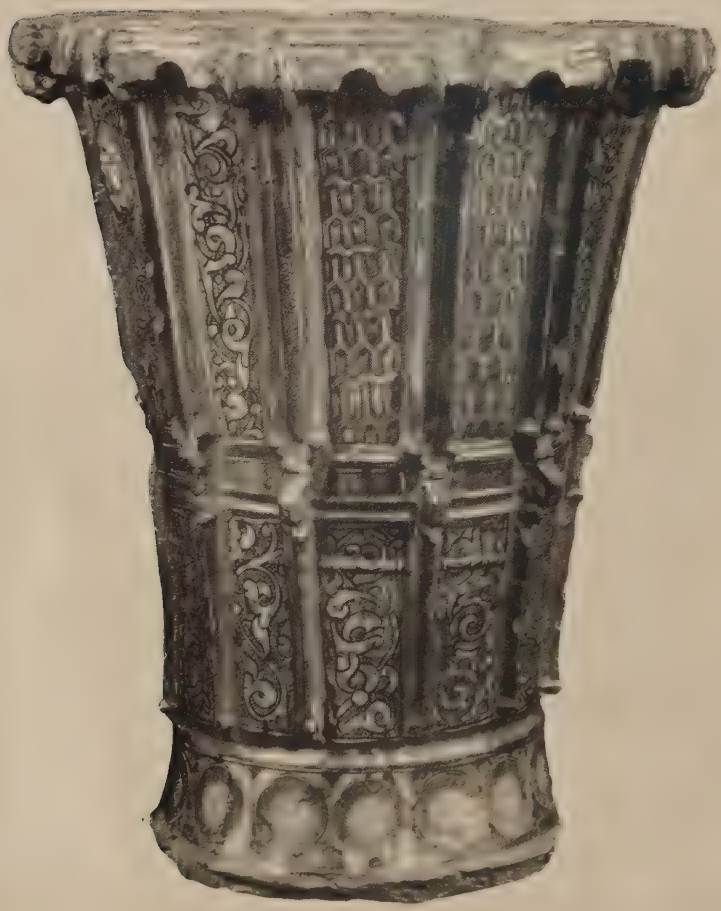


a. Vase fragment. Granada. Late 14th or early 15th century
(*By courtesy of the Hispanic Society of America*)



b. Vase neck, Granada. Late 14th or early 15th century
(*By courtesy of the Hispanic Society of America*)

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on 13th July 1443, as appears from their confirmations to another *rueda*[1] of this reign.

V

THE NASRID BACKGROUND. CONCLUSION

The period between the death of Muhammad VII in 1407, until 1454 and that of John II of Castille, is admittedly the most obscure and troubled by civil dissensions in the Nasrid annals. Excluding the rule of Yusuf III, the Sultan commemorated by the Fortuny or Albaicín plaque—one considered to have passed not without splendour—the reigns comprised, i.e. of Muhammad VIII, Muhammad IX, and Muhammad X, Yusuf IV and (first) Saad, present no less than ten regnal periods, owing to usurpations and, indeed, sub-usurpations. Muhammad VIII, 1417–45, was subjected to three such periods, the first sub-reign being that of a cousin, Muhammad IX, 1427–9; the second, for six months of 1432, of Yusuf IV, grandson of Muhammad VI, the Red King, who was himself an intruding collateral under Muhammad V. The eighth Muhammad's last spell of power, 1432–45, was terminated by the first reign, 1445, of a nephew, Muhammad X, the cousin once removed of Saad who reigned 1445–6, when Muhammad X's return to the throne, 1446–55, preluded Saad's restoration, 1455–65. The writer is less concerned to reconcile the variant dates and other discrepancies that beset the chronicle of this period, so largely neglected since Conde and De Gayangos, than to recall some contemporary episodes in Castillian suzerainty over Granada and of dynastic intercourse, to which the vase, Granada II, may perhaps be held to bear witness in its presentation of arms in *rueda* form.

The histories of Yusuf IV and of Saad, under Sultans Muhammad VIII and Muhammad X, respectively, are capital instances of the intervention of John II of Castille in Nasrid affairs, the support he accorded to the pretender as to the dethroned intruder, turning upon their offers of fealty to him as Granada's suzerain; these offers were in the circumstances, of course, spontaneous, whereas the homages paid to the Castillian crown by enthroned rulers of the Moorish state were usually yielded under duress of war.

At his accession in 1417 Muhammad VIII, the Left Handed (*al-Aisar*), had obtained a seventeen months' prolongation of the truce granted to his parent Yusuf III after the fall of the Moorish frontier town of Antequera in 1410 to John II's uncle, the Infante Fernando, who was elected to the throne of Aragon in 1412. As determined by the Infante's conquests, a line including Zahara-Antequera-Ayamonte-Cañete-Ortexecar, etc., was acknowledged as the border in 1424, when what are described as rare gifts were bestowed upon the Castillian monarch. Three years later, however, Muhammad VIII, expelled from the Alhambra by his father's cousin,

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succeeded Juan de Avellaneda, lord of Yzcar, *Epitome*, pp. 113–14. He fought at Aljubarrota, 1385; was Castillian envoy at the Council of Basel, where he had a dispute over precedence with the English representative, López de Haro, *op. cit.* i, 534–6. He was created count of Cifuentes in 1454.

[1] This example, figured Rodríguez, *Biblioteca universal de polygraphia española*, 1738, shows plain fields to the quarterings; the occurrence of diapering in these spaces may probably be inferred to be exceptional, though whether any late seal of John II throws light upon his documentary armorials the writer has not been able to establish. Certain it is that the royal sigillographic arms took *ruedo* form.

Muhammad Abu Abdâllah, became a refugee at John II's court and later on in Morocco, under the Marinid Sultan. The brief reign of the new sultan, Muhammad IX, the Little (*al-Saghir*), ends with the return to the Albaicín at Granada of the eighth Muhammad at the head of Tunisian forces, and the putting to death of the usurper in 1429. Later on, Muhammad VIII, judging the moment afforded by dissensions among the nobles of Castille favourable for shaking off suzerainty, rebels; and John II declares war.

Yusuf IV, the Yusuf Aben Almao (i.e. al-Ahmar) or Aben Muley of the chroniclers, was, according to most authorities, an inheritor of Nasrid blood through his mother,[1] daughter of the Red King, Muhammad VI.

King John at Cordova receives an emissary of Christian birth who had been taken captive by the Moors in his eighth year [a member of the Vanegas family exiled by the Sultan: Conde]. He says the country would declare for John if he entered Granada, and with more effect were he leagued with 'D. Yusuf Abenalmao', grandson of the Red King; on whose behalf he is empowered to negotiate a rebellion. Yusuf offers a force of more than 8,000 men, a large part of them nobles, as soon as John appears in the Vega, and declares that if he, Yusuf, becomes master of the kingdom,[2] he will be content to remain the true and faithful vassal of the Castillian monarch. King John agrees and, on the invasion of Granada, Yusuf presents himself to kiss his hand, being followed by leaders of his forces. Subsequently Muhammad VIII is defeated at the battle of La Higuerela, otherwise of the Vega of Granada, 1st July 1431, leading to Yusuf's proclamation as king of Granada at the Castillian court at Cordova, and his accession, solemnized by John II with renewed offers of aid. Many towns are taken or rise in his favour. Among them are, according to the *Epitome*: Montefrio, Illora, Ronda, Archidona, Ardales and Loja (less its citadel). Muhammad VIII flees to Malaga. Yusuf's entry at the Alhambra is followed by his declaration of allegiance to the king of Castille, an undertaking to pay annual tribute and to fulfil other conditions of vassalage, to serve the Christian monarch in war; to attend Cortes when they are held on this side of the Montes de Toledo, or to send a deputy; which he signs with his name and orders his scribes to sign and to seal with his gold seal. Yusuf rules over all Granada except Malaga, where Muhammad VIII maintains himself; but dies after a reign of six months, ending 24th June 1432.[3]

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[1] Cf. Lévi-Provençal's account of the Nasrids, *Enc. of Islam*, iii, 880; also González-Palencia. If Lane-Poole and Zambaur take the opposite view, according to which Yusuf was a male Nasrid, yet both he and his grandfather, the Red King, sprang from a line collateral to that of the Sultans Ismael I, Muhammad IV, Yusuf I and Muhammad V. The direct or non-collateral Ansar extraction, referred to in a verse inscribed upon the fountain in the Court of the Lions, no doubt carries a reflection upon the descent of Muhammad VI, the Red King, a usurper (1359–61) under Muhammad V. The Nasrids claimed descent through the tribe of Khazraj from the Ansar or Helpers of the Prophet after his flight from Mecca.

[2] One of the Frontier Epics (*Romances Fronterizos*) 'El moro Abenámar' has for its subject the wooing of Granada by King John II in 1431. After the Moor has pointed out the architectural wonders of the Alhambra, the Generalife, etc., the King makes his declaration:

'Si tú quisieses, Granada,
contigo me casaría;
daréte en arras y dote
a Córdoba y a Sevilla.'

Granada's reply is:

'Casada soy, rey don Juan,
casada soy, que no viuda;
el moro que a mí me tiene,
muy grande bien me quería.'

Duran, *Romancero general*, no. 1038; cf. Fitzmaurice Kelly, *Chapters on Spanish Literature*, p. 109.

[3] Martínez de la Puente, *Epitome*, *op. cit.*, lib. iii, caps. xviii–xx; Conde, *op. cit.* (Engl. edn. Bohn's Lib.), iii, cap. xxx.

On his restoration Muhammad VIII obtains a year's truce, but frontier hostilities lead to another war in which such setbacks as the abortive siege of Gibraltar by the count of Niebla, Don Enrique de Guzman, 1436, and the temporary loss of Algeciras, are arrested by a campaign in which the forces under Don Inigo López de Mendoza (marqués de Santillana in 1445) at length bring the Moor to heel. The conditions of the peace, for which Muhammad VIII sues in 1438 (November), are very similar to those imposed upon Yusuf IV after La Higuerela, but more onerous, and include, beside the restoration of Algeciras, an annual tribute of 20,000 *doblas* gold.[1] Muhammad's objections are met by the reminder from Don Iñigo López de Mendoza that, leaving aside Yusuf IV, the kings of Granada had been vassals of Castille, as he could prove by charters (*privilegios*) conceded to his ancestors, in which they styled themselves both one and the other. The deadlock ends with the Moorish proposal for a peace which is granted, but for three years only, with Morocco as a contracting party, on 16th April 1439. One stipulation of the truce concerns the ransom of a Moor of distinction, fixed at 1,000 *doblas* gold, either of the *Banda* or other current *doblas*. The treaty is drawn up in Latin and Arabic in identical copies validated by the royal seals. On the following day Muhammad signs an undertaking written in red (described as a *carta bermeja*) to hand over, on behalf of himself and his crown, at three different places, the *doblas* and the prisoners of war stipulated. The *carta*, which appears to have been drawn up in Arabic and Castillian, is to be handed back to the sultan after the money and captives are received. The rule of Muhammad VIII may be said to outlive the operation of this treaty by three years, when a nephew, son of Othman, his brother, rises in rebellion, secures the Alhambra and throws the sultan into prison; the latter abdicates (1445).

The new ruler, Muhammad X, the Lame (*al-Aḥnaf*), has soon to reckon with a competitor.

Saad (Abu 'l-Nasr), al Mustaʿin, *alias* Aben Ismael, Ismael, Muley Çad, and Ciriza, was son of Ali, brother of Sultans Muhammad VII and Yusuf III, and cousin of Muhammad VIII.

Saad's intervention is due, according to the *Epitome* and Conde, to the Abenserraj (Abencerrage) vizir of Granada's embassy from Montefrio, whither he and his kinsmen had betaken themselves after Muhammad X's usurpation: Saad, then at the court of Castille, is the 'Infante Ismael' of the *Epitome*, and, to Conde, 'Muhammad Aben Ismael', nephew of Muhammad VIII. According also to the *Epitome*, Saad undertakes to become the vassal of Castille if the assistance he needs in order to secure the throne of Granada is given.[2] Saad's first reign is brief. Hernando de Baeza, who reports that a harsh rule cost him the throne, may be quoted for some negotiations leading to his restoration.

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[1] J. Amador de los Ríos, 'Memoria . . . sobre las tréguas celebradas en 1439 entre los reyes de Castilla y de Granada', in *Memorias de la R. Academia de la Historia*, ix, esp. pp. 49–50. The map here given of the limits of the sultanate of Granada under the treaty shows a frontier running from a point on the coast about half-way between Algeciras and Gibraltar, N. by Ximena to *Zahara*, then NE. by Cañete and *Antequera* to Cuevas Altas, thence taking a series of curves, E., by *Alcala la Real*, *Huelma*, Solera, Cabrera, to Huescar; then SW. to Albox; thence NW. to Los Velez (Rubio and Blanco) and at Tiricia running SE. along the Murcian border to the coast between Vera and Almazarron. The places italicized were constituted to be of free concourse for Moors, Christians, and Jews.

[2] Martínez de la Puente, *op. cit.*, lib. iv, cap. x; Conde, *op. cit.* (Bohn), iii, caps. xxxi–xxxii.

On Muhammad X's return to the Alhambra (1446) Saad retires to Archidona, and having obtained a safeguard for his son 'Abulhacen', later Sultan Abu 'l-Hasan, sends him to John II at Olmedo, there to urge his father's case: that he is expelled for having punished excesses in the city of Granada, and another king has been chosen when, according to *Sharia* and *Sunna*,[1] Saad is king, not Muhammad. Saad solicits the aid of John II and in return for it will swear to be his loyal servitor and to hold to John's obedience all the places that return to his own allegiance. King John agrees, making peace with all localities that hold for Saad; he also issues letters signed with his own name and translated by his interpreters, for certain nobles of the city of Granada and its Albaicín, which the Moorish king sends secretly to his followers in the city, and the men of Granada having seen the letters, declare for Saad and drive out the other king. Muhammad flees to the Alpuxarras. When Saad again enters Granada (1453) he informs King John and sends him the best gift his penury allows of, asking that his son be allowed to return. This is displeasing to the Castillian monarch, and much more so to his son Henry because of sports shared with Abulhacen and his suite, nor is King John himself able to give him many silks and other presents, and he asks therefore that certain other Moors be allowed to remain. Thus the prince returns to his father.[2]

With the death of John II in 1454 the point is reached when the citation of such historical detail may be discontinued; but the role of Saad (1453–61) as an embellisher of the Alhambra requires notice. This sultan finds a place among Alhambra builders since the attribution to him of the Infantas' Tower (*Torre de las Infantas*), formerly assigned to the reign of Muhammad VIII. The edifice, which an authority characterizes as the last dated work of the Moorish Alhambra, exemplifies the application of classical Hispano-Moresque style to a complete palace in the century following the great edifices of Yusuf I and Muhammad V.[3] Here the ornamental decline betrayed in certain overcomplex schemes of the Hall of the Two Sisters has crystallized; the elaboration is that of mere pattern mechanically treated and the arabesque is relaxed, the leaf without entasis, against stalk convolutions of almost Celtic profuseness. The geometrical schemes include compositions akin to the band of rectilinear interlacing round the centre of Granada II. Apparently, the Nasrid shield affected by Saad had the bend inscribed.

To resume. The ornament and heraldry of the missing vase (Granada II) combine to indicate the fifteenth century for the period of its manufacture and, more especially, the reign of a sultan of Granada, a contemporary of John II of Castille. The findings, though they remain incomplete, remove Granada II from the fourteenth century, and the great Malaga vase-group, approximating it rather to the surviving vase at the Alhambra as located chronologically by Don G. J. de Osma when, after redating the Albaicín plaque to the reign of Yusuf III of Granada (1407–17), he wrote: 'As belonging to those years or very little later must be considered the great vase kept at the Casa Real of Granada: in so far as the lettering in the inscription and the foliage details of its florid arabesque are valid indices.'[1]

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[1] One definition of the Sharia gives it as the canon law of Islam, *Enc. of Islam*; another, the Divine or Positive Law, *The Legacy of Islam*, p. 288. For the Sunna, above, Section iv, 3.

[2] Hern. de Baeza, 'Las cosas que pasaron entre los Reyes de Granada desde el tiempo de el rrey don Juan de Castilla segundo de este nombre, hasta que los catholicos reyes ganaron el rreyno de Granada', in M. J. Müller, *Die letzten Zeiten von Granada*, 1863. Baeza, who is described as a friend and contemporary of Boabdil (Sultan Muhammad XI), had anything but an accurate knowledge of the events of Saad's lifetime, and makes him the successor of Muhammad VIII, ignoring the first reign of Muhammad X. When in turn Saad is expelled by the Moors they raise 'another king' to the throne: this unnamed personage is Muhammad X in his second regnal period. His account of the negotiations that led to Saad's return to power is valuable but the reign itself is 'telescoped' (*op. cit.*, pp. 60–2).

[3] Cf. Marq. de Lozoya, ii, 427, fig. 453.

APPENDIX

1. *The Hispanic Society of America's Vase-neck and Sherd*

The large-scale arabesque upon the neck (pl. xx *b*) recalls in its treatment that of the wings and neck panels of the Alhambra vase, but has none of the latter's spontaneity. Whereas, also, the modelling of the neck with double and single vertical mouldings, above and below the central subdivision, is of Granada II type, the varying locations of the geometrical motive in upper and lower stories of neck and print respectively more than suggest that different vases are in question. The geometrical pattern, which resembles one variety of the heraldic *vair*, finds an illustration in the upper and lower borders of the famous Moorish, probably Nasrid, banner known as the *Pendón de las Navas*, already alluded to in connexion with its frequently overlooked animate form figurations (see p. 65).

No. E. 576 in the collection of the Hispanic Society of America, New York.[2]

Scheme: copper gold lustre pigment preponderates—mouldings and rings on base; the arabesque blue outlined in lustre; the 'vair' pattern blue and lustre.

Height, 43 cm. Reddish clay.

With regard to the stylized inscriptions round the base, Mr. R. Guest thought that the three central medallions give different designs, suggesting an original that has been a good deal corrupted and debased, and must now be treated as undecipherable.

The sherd (pl. xx *a*), which shows sections of an inscribed roundel or annulet and of a band of rectilinear interlacing, is clearly from a vase body of like ornamentation to Granada II, being possibly the area below and to the right of a lateral annulet (that enclosed the Nasrid arms?). The arabesque (forms 2, 4, etc.) is plain, with bosses or studs at stalk intersections, the stalking prominent; occasionally the ground itself is studded.

As to the likelihood that the fragment is actually part of Granada II, an apparent heaviness of style in the arabesque is perhaps less of a difficulty than the discrepancy between the section of interlacing and the very authentic scheme of the kind presented by Granada II.

Mr. R. Guest described the epigraphy of the fragment under consideration, now faint to the point of illegibility, as apparently showing part of a good legible Arabic inscription, comprising the concluding part of a word, then two undamaged words followed by part of one or two words —all now in his opinion of uncertain purport.

No. E. 734 in the Hispanic Society's collection.[3]

Scheme: the inscription and accompanying circular segments are in lustre pigment; the arabesque (forms 2, 4, etc.), blue; the interlacing in lustre and the white ground colour.

Dimensions, 16·4×12·8 cm. Red clay.

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[1] (Translated.) *Apuntes*, i, 35. The preceding passage, referring to the Albaicín plaque, has already been cited, p. 63, note 3. The reign of Yusuf III (d. 1424) is usually dated 1407–17.

[2] *Catalogue of Hispano-Moresque Pottery in the Collection of the Hispanic Society of America*, by Alice Wilson Frothingham, p. 109, 1936.

[3] *Catalogue*, *op. cit.*, p. 112.

2. *Provisional List of Alhambra Vases, to 1936*

The gravitation to Madrid—already the home of the vase from Hornos—of that from the Burgio collection at Mazzara, as of the vase found at Jerez, has practically necessitated a review of the vase nomenclature in the interests of brevity, to say nothing of a code of names embodying the significance of locations (the earlier the presumption the better) or provenance. That facts of this nature are not at command as regards certain vases, e.g. Stockholm, Berlin (really a half-vase), and two of peeled surface, the Simonetti, and the Heilbronner (since 1936, non-existent), need not prejudice the adoption of the really distinctive as well as significant names for the vases of Hornos and Jerez in the Madrid Archaeological Museum, the Salar vase (Leningrad); or, for the diffusion of the style, the Mazzara vases (I, II) in the Palermo Museum, and the collection of the Institute of Valencia de D. Juan, Madrid, respectively; or, that from the Albaicin suburb of Granada (Freer Art Gallery, Washington). Of the group connected with the Alhambra, the existing vase (implicitly Granada I) is here followed by II, the lost vase of the *Antigüedades árabes*; another vase, of entirely obliterated surface, in the Granada Museum, is designated on this system. Some half-dozen vases of uncertain *état civil*, mostly smaller and some of them in now equivocal condition as to surface, are not included in the list.

Granada Group

The Alhambra Vase. Granada, Palace of the Alhambra.
Height 1·360 or 1·365 mm.
Repr. above, pl. XIII *a*: a three-quarter view, in Ferrandis-Torres, *Los vasos de la Alhambra*, vii, the opposite side, *Spanish Art* (*Burl. Mag. Monograph*), pl. 2 B.

Granada II Vase. Formerly at the Alhambra.
Repr. *Antig. árabes de España*, pl. XIX (probably copied, by De Laborde, 1812, and Murphy, 1813; above, pl. XIII *b*).

Granada III Vase. Alhambra Museum.
Body only; ornament obliterated.
Repr. *Hispania*, ii, 335, fig. 2. 1900.

Albaicin Vase. Washington, Freer Gallery of Art, 1919. Fortuny sale 1875, n. 43; C. Stein sale, Paris, May 1886, n. 96; Ch. Davis, London, acqd. Freer coll. 1903.
Height 77 cm. Body and fraction of one wing.
Repr. above, pl. XVIII *b*.

Berlin Vase. Schlossmuseum, formerly Kunstgewerbe Mus., ex Duseigneur, 1900.
Upper part of body, neck-base and lower base of one wing.
Height 58 cm.
Repr. Ferrandis-Torres, viii (*a*).

Fragments
Vase neck and base. Hispanic Society of America, New York. E. 576.
See above, pl. XX *b*.
Body fragment. Hispanic Society of America, New York. E. 734.
See above, pl. XX *a*.

The Society's *Catalogue*, by Alice Wilson Frothingham, 1936, pp. 112, 113, describes the above as 'From the Alhambra Palace, Granada'.

Malaga group

Salar Vase. Leningrad, Hermitage Museum, 1884. El Salar (Andalusia), Granada, priv. coll., Fortuny sale 1875, n. 42, and Prince Basilewsky coll.
Height. 1·17 cm.
Repr. above, pl. XIV *b*.

MAZZARA I Vase. Palermo, Museo Nazionale, *c.* 1885, ex Mazzara del Vallo, W. Sicily, church of Madonna del Paradiso; Pal. Vescovile.
Height 1·17 cm.
Repr. above, pl. XIV *d*.

MAZZARA II Vase. Madrid, Instituto de Valencia de D. Juan, 1924, ex Mazzara, coll. of Count G. Burgio.
Height 1·20 cm.
Repr. Ferrandis-Torres, iii (*b*). (*Apollo, XI, 332–3*; apparently a side view of this vase; describes it as 'from Granada' and gives the height as 1·145 m.)

JEREZ Vase. Madrid Museo Arqueológico Nacional, 1930, ex Jerez de la Frontera, SW. Andalusia Carthusian Monastery of S. María de la Defensión, founded 1475.
Height 1·26 cm.
Repr. Revilla y Vielva, *Mus. arq. nac. . . . Vaso árabe encontrado en Jerez de la Frontera*, 1931, above, pl. XIV *c*.

STOCKHOLM Vase. Stockholm, Nationalmuseum, 1866, ex Castle of Drottningholm.
Height 1·25 cm.
Repr. Darcel and Delange, *Recueil de faïences*, pl. 4; *Hannover*, ed. Rackham, i, fig. 86; *Guide*, p. 7, pl.

HEILBRONNER Vase. R. Heilbronner sale, Paris, June 1921, n. 17; J. S(eligmann) sale, May 1925, n. 46.
Height 1·23 cm. Wings missing.
Repr. *Meisterwerke, Ausstellung Mohammed. Kunst, München*, 1910, ii, 118.
Al-Andalus, iv, 419, pl. 12 (Torres Balbás.—Destroyed by fire at the Irun Customs 1936).

The loss of this vase is unfortunate, its body scheme, though largely obliterated, being clearly an original one; but the conformity of its neck treatment to the Malaga canon leaves no basis for a different attribution, as to style.

SIMONETTI Vase. Granada, Alhambra Museum, 1934. (According to Davillier, Fortuny sent a sketch of a vase in his possession to one of his pupils, Simonetti, in 1871. Fortuny's collection then included the vases from El Salar and the Albaicín of Granada.)
Height 1·21 cm. The base is all that remains of each wing.
Repr. *Meisterwerke*, *op. cit.* ii, 119; exhibited by Simonetti.
Al-Andalus, iv, 418, pls. 10, 11 (here Señor Torres Balbás gives two views of the neck, the only unobliterated part of the vase scheme).

Fragments

Neck with upper section of base. From Sicily. Dr. J. Hirsch, New York.
Height 38·5 cm. Reproduced above, pl. XVI *d*.
Neck fragment. From Fustat. Victoria and Albert Mus. (*c.* 787–1921) $5\frac{3}{4}\times4$ in.
Reproduced above, pl. XVII *d*.

Malaga or Murcia?

HORNOS Vase. Madrid, Museo Arqueológico Nacional, 1875. Hornos (='kilns', NE. Andalusia; in some old maps shown within the W. frontier of Murcia). V. Juan y Amat, previous owner, ex parish ch.
Height 1·35 cm. About half one wing missing.
Repr. *Las joyas del Exposición Hist.-Europea*, Madrid, 1892, pl. CXI; Cat. Sala xi, n. 149; Williams, *The Arts and Crafts of Older Spain*, ii, pl. LX; Guía del Museo, 1917, pl. XV.

But for the orthodox treatment of the neck panels, the scheme is *sui generis*. A convex-canellated surface, given vertical subdivisions, is intersected by a central band of inscription; the fleuron and kindred forms on the body, and an original 'step and shoulder' for the wings, are staple motives of the but partially preserved scheme. Blue is used in the design.

An Alhambra Vase?

NOVARA Vase. Novara di Sicilia (NE. Sicily), church of S. Maria la Novara.
Height 74 cm.

With an immemorable location as above, this vase known as the 'Giarra di Sant' Ugo', does not appear to have attracted notice previous to G. Borghesi's brief reference in *Novara di Sicilia e le sue opere d'arte*, 1906, p. 30 (from *Archivio stor. messinese*, vi–vii), unless it be mentioned in *Novara di Sicilia*, by G. Borghese, 1875. The more detailed particulars given by E. Mauceri (*Faenza*, xviii, 10, 1930) describe it as walled in on the left, as one enters the edifice, its surface much deteriorated, and, given its location, not possible to photograph. The neck is octagonal for two-thirds of its height [i.e. a circular neck-base would account for the remaining third]; its decoration, 'zig zags', and lilies inserted within pierced hexagons near the upper edge. The colour, gold upon greenish-white.

As befits an article upon Sicilian ceramics, other Malaga motives are cited for Sicilian origin: chevrons, volutes, etc., and are alleged to point to Caltagirone as the probable place of manufacture.

3. *Owen Jones and Jules Goury* (*1842–5*)

Plans, Elevations, Sections, and Details of the Alhambra, from Drawings taken on the spot in 1834 by the late M. Jules Goury, and in 1834 and 1837 by Owen Jones, Archt. . . . London, 1842–5. The preliminary advertisement says: 'To ensure perfect accuracy, an impression of every ornament throughout the palace was taken, either in plaster or with unsized paper, the low relief of the ornaments of the Alhambra rendering them peculiarly susceptible of this process: these casts have been of essential service in preparing the drawings for publication and having been placed with them in the hands of the engravers, have greatly contributed towards the preservation of that peculiar sentiment which pervades the work of the Arabs.' The remark applies that if the entasis of the ideal arabesque leaf outlines be counted to the aesthetic quality or sentiment in question, Jones and Goury are as a rule adequate where confrontation with photographic reproductions can be made. In practice the principal variations affecting the ideal beauty of the leaf proportions, as displayed in the Alhambra stuccos, are hardly reflected by the vase ornament unless perhaps in that of Granada; the Malaga brushwork preserves leaf entasis according to the individual style of the executant.

4. *Principal Modern Authorities* (*1920–40*)

CRESWELL, K. A. C., F.S.A. *Early Muslim Architecture*, vol. ii (period A.D. 750–905), 1940.
Especially the chapters:
VI *a*. The Great Mosque of Cordova.
The Great Mosque of Qairawan.
VIII. Ceiling paintings discovered 1935 (p. 221, pl. 50).
XV. Lustre tiles (p. 309, pl. 86, 86 *a*).
Samarra.
IX. Palace of al-Muʿtasim: decoration (p. 234, figs. 183–90).
XI. Great Mosque: decoration (p. 258, fig. 304).
XIII. The ornament of Samarra (pp. 286–8, fig. 227; pls. 52–8, 67, 72–8).
XVII. The works of Ahmad Ibn Tulun (pp. 327–60, pls. 96–114).

HESPÉRIS. *Archives berbères et Bulletin de l'Institut des Hautes Études marocaines*, vols. ii–vii, 1922–7. Especially the articles:
II. Ferriol—Les ruines de Tinmel (p. 161). Terrasse, H. Les portes de l'Arsenal de Salé (p. 357, esp. pp. 364–5, 368; pl. II, fig. 6). Basset, R., and Lévi-Provençal, Chella, une nécropole mérinide (esp. p. 61, pl. v, p. 76, fig. 20); 255 (esp. p. 268, figs. 30, 32, pl. IX.)

  III. Gallotti, J. Le lanternon du minaret de la Koutoubia (1194–7) à Marrakech (pp. 38, 41, pls. i, ii). Terrasse, H. Le décor des anciennes portes du Maroc (p. 147, esp. p. 157, pls. i–vi, and figs.). Basset and Lévi-Provençal, Chella (contd. p. 163, etc.).
  IV–VII. Basset, R. and Terrasse, H. Sanctuaires et fortéresses almohades: i. Tinmal. ii–vi. Les deux Kotobîya; la mosquée de la Qasba. Appendice. La tradition almohade à Marrakech.

De la Nezière, J. *Les Monuments moresques du Maroc*. Préface de M. le Maréchal Lyautey, 1924.

Horne, J. *Many Days spent in Morocco*, 1925.

Terrasse, C. *Médersas du Maroc*. (Documents d'Architecture, 1927.)

Maslow, B. *Les mosquées de Fez et du nord du Maroc*. 1937. Includes Taza, p. 17, figs. 18, 19.

MANUEL D'ART MUSULMAN.
  Marçais, G. *L'architecture: Tunisie, Maroc, Algérie, Espagne, Sicile*, 1926.
  Migeon, G. *Arts plastiques et industriels*, 1927.

Lozoya, Marqués de. *Historia del arte hispánico*. Vols. i, ii, 1931–4.
  The chapters:
    I. viii–x. Época de los Omeyas, Córdoba, Medina Azzahra. Reinos de taifas, Almorávides y Almohades.
    II. xi–xiii. La arquitectura granadina. La arquitectura mudéjar de carácter religioso.

Terrasse, H. *L'art hispano-moresque des origines au XIII^{e} siècle*, 1932.
  Cap. I. Les origines. II. L'Art omeiyade. III. Reyes de Taifas; Almoravides. IV. L'Art almohade. V. L'Art hispano-moresque et l'art musulman.

Ricard, P. *Pour comprendre l'art musulman dans l'Afrique du Nord et en Espagne*, 1924.

Kühnel, E. *Maurische Kunst*, 1924.

Saladin, H. *L'Art hispano-moresque: l'Alhambra*, 1920.

Al-Andalus. *Revista de las Escuelas de Estudios Árabes de Madrid y Granada*, 1933– . (Includes from 1934 onwards a 'Crónica arqueológica' de la España Musulmana' (especially for Granada by Señor L. Torres Balbás).

Almagro Cardenas, A. *Museo granadino de antigüedades árabes*, 1880.

Addenda (pp. 63–4). Crowned shields of the Nasrid arms, the bend inscribed, crowned lions rampant, with a naturalistic and conventional foliage, are figured upon a red damask, reproduced Tricou & Galbraith, Les Documents héraldiques du Musée des Tissus de Lyon, 16, no. 18 (Archives hérald. suisses), 1930–1.

(pp. 74–5.) Provisional List. J. Folch y Torres, La cerámica (El Tesoro artístico de España, 1927), for unusually clear reproductions of details.

Note. In addition to the acknowledgements made above, the author wishes to record his indebtedness for information or facilities courteously supplied, especially during the war, by Prof. K. A. C. Creswell (Cairo Univ.); Dr. L. D. Barnett (Library, School of Oriental Studies); Mr. Bernard Rackham, C.B., F.S.A.; Mr. R. P. Bedford, F.S.A.; Mr. W. B. Honey; Mr. A. W. Wheen, M.M. (Victoria and Albert Mus.); and to the printers for unfailing co-operation. Also to Señores J. Ferrandis, R. de Aguirre, and F. Álvarez-Ossorio (Museo Arqueológico Nacional, Madrid); Comm. G. Ballardini (Museo delle Ceramiche, Faenza); Dr. J. Kühnel, Dr. E. Meyer (Staatliche Museen, Berlin) and Dr. Stavenow (Nationalmus., Stockholm), for obligingly communicating data or photographs.

A Saxon Village at Sutton Courtenay, Berkshire

Third Report

By E. THURLOW LEEDS, Esq., M.A., F.S.A.

SHORTLY after the presentation of the Second Report to the Society, in March 1926, the gravel-workings from which the material for both this and the First Report[1] had been obtained were abandoned, the site of House XX marking the southerly limit of the land leased for exploitation. On a tour, however, of the district south of the Thames between Drayton and Long Wittenham in 1930, I found that a wide drift had been cut leading southwards from the Drayton–Sutton Courtenay road immediately east of Council cottages newly erected, and that new workings had been for some time in progress under the management of the Berkshire County Council, along the eastern boundary of the older pit.

From inquiries made at the time and later I could not learn that any house-sites had been revealed in the drift, which extended as far south as the level of House XX, nor beyond that point in that part of the new pit which had already been developed. It is just possible that some may have passed unnoticed, but the keen and intelligent powers of observation subsequently displayed by Simon Moses, the foreman of the new pit, leads me to believe that nothing of importance occurred in the drift which lay east of a line represented by Houses X, XI, and XX in the area of new excavations between the eastern edge of the drift represented by Pit T and the site of Houses XXI to XXIII.

Actually we arrived once more upon the scene when Pits P, Q, R, S, and α had been revealed by the process of 'topping' the gravel.

From 1930 the exploration of the site was continued by members of the Oxford University Archaeological Society for some years, at first intensively, but later spasmodically as reports of the appearance of new house-sites came in. The presentation of a Third Report was meanwhile deliberately held over on the chance of further discoveries, but, as neither by 1937 nor later had any new discoveries been reported or made, it has been decided to publish the results up to that year. This has already been in part anticipated in 1934 by incorporation of an account of pits of late Neolithic or Early Bronze Age date (Pits P–W) under 'Recent Bronze Age Discoveries in Berkshire and Oxfordshire',[2] and of ditches in 'Parallel Ditches in Berkshire and Oxfordshire'.[3] Except, therefore, for some general remarks on the prehistoric material, the present report is confined to that of the Saxon period.

Eleven additional house-sites have brought the total number explored on this site up to thirty-three, and their distribution on the plan allows some idea of the size of the village to be formed. Apparently it occupied an area roughly 390 by 290 yards between the Drayton–Sutton Courtenay road and Drayton East Way,

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[1] *Archaeologia*, lxxiii, 147–92 and lxxvi, 59–79.

[2] *Antiq. Journ.* xiv, 264–8.

[3] *Ibid.* xiv, 414–16, where on pl. LVIII the extent of the gravel-pits is clearly visible.

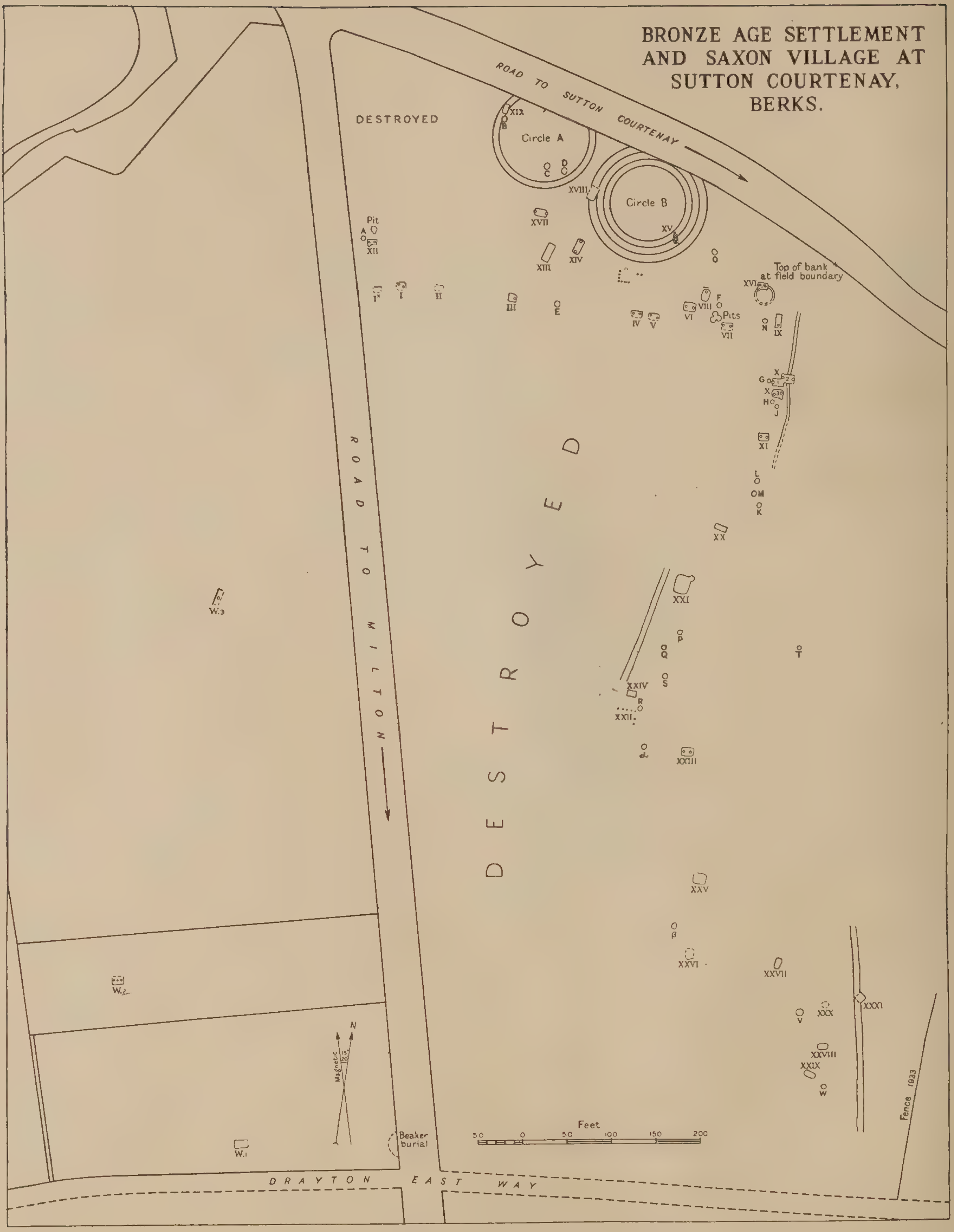

BRONZE AGE SETTLEMENT AND SAXON VILLAGE AT SUTTON COURTENAY, BERKS.
ROAD TO SUTTON COURTENAY
DESTROYED
Circle A
Circle B
XIX
B
C
D
XVIII
XV
Pit
A
XII
XVII
XIII
XIV
Top of bank at field boundary
XVI
I^x
I
II
III
E
IV
V
VI
VIII
F
Pits
VII
N
IX
X
G
1
2
3
H
J
XI
L
M
K
XX
D E S T R O Y E D
ROAD TO MILTON
XXI
P
Q
T
S
XXIV
R
XXII
α
XXIII
XXV
β
XXVI
XXVII
XXXI
V
XXX
XXVIII
XXIX
W
Fence 1933
W.3
W.2
W.1
N
Magnetic
15°
20
Beaker burial
Feet
50
0
50
100
150
200
DRAYTON EAST WAY

FIG. 1. Plan of the Saxon Village, Sutton Courtenay

the accommodation-road 400 yards southwards. That the village stopped short of this latter road seems to be indicated by the non-discovery of any house-site south of House XXIX. The workings have been carried up to the boundary of Drayton East Way, but except for House W.1 (see Second Report) no signs of occupation were found along that line. Whether the village extended east of the drift is of course unknown, but at the southern end of the pits where the workings had been extended some distance east of a N.–S. line corresponding to the east wall of the drift, no sign of occupation has been observed (fig. 1).

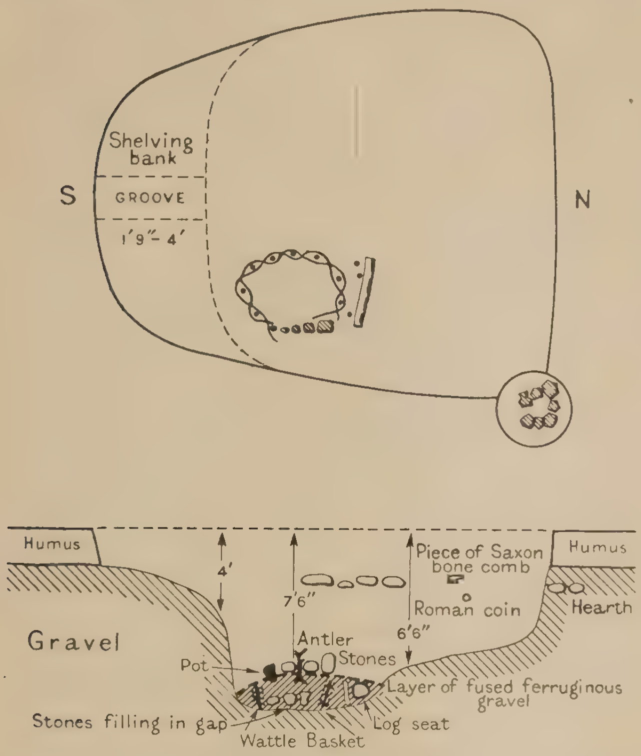
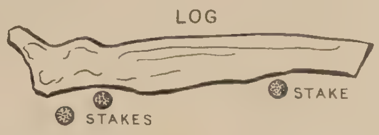

Shelving bank
S
GROOVE
1'9"– 4'
N
Humus
4'
7'6"
Piece of Saxon bone comb
Roman coin
Humus
Hearth
Gravel
Antler
6'6"
Stones
Pot
Layer of fused ferruginous gravel
Stones filling in gap
Log seat
Wattle Basket

FIG. 2. House XXI. Plan and section (scale $\frac{1}{8}$ in. to 1 ft.)


LOG
STAKE
STAKES

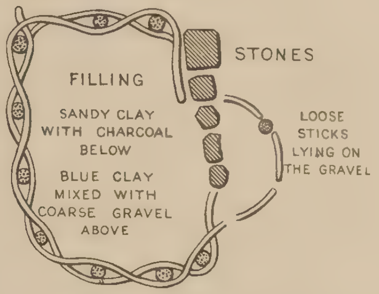

STONES
FILLING
SANDY CLAY WITH CHARCOAL BELOW
BLUE CLAY MIXED WITH COARSE GRAVEL ABOVE
LOOSE STICKS LYING ON THE GRAVEL

FIG 3. House XXI. Plan of part of the floor (scale $\frac{1}{2}$ in. to 1 ft.)

The prehistoric discoveries are, as before, dotted about over the Site. The position of a portion of the eastern 'parallel ditch' is shown running in a south-westerly direction from a point immediately west of the Saxon House XXI, and Pit T, in part destroyed, was laid bare in the east wall of the Berkshire County Council's drift.

House XXI[1] (figs. 2–3)

Until the discovery of this house the course of exploration on this site had revealed houses of a more or less oblong form and of a fairly uniform depth of 2 to 3 ft., except in one case, where the builders had to find their gravel floor at the bottom of a Bronze Age trench at a depth of 4 ft. In the present instance there was no such reason for their action, but nevertheless the bottom was not reached until 7½ ft. from the surface. The main part of the excavation measured 18 ft. square. On the south side a broad ledge sloped from 1 ft. 9 in. below the surface to 4 ft.; in the middle of it was a deep groove running from north to south. On the north site of the pit and along the west side the top soil measured 3 ft. in depth. Whether all this thickness of top soil is original is hard to say; some may have been dumped from past workings by gravel-diggers. Below the top soil it was not easy to determine the original dimensions of the pit, since, as the nature of the filling clearly showed, there had been large slips of gravel from the sides after its abandonment. These may also account for the apparent ledge on the south side. On a rough calculation it must have been some 14 to 16 ft. square at the bottom. No indication remained to show how these tall gravel walls had been supported.

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[1] A brief account of this house was presented to the First Prehistoric Congress held in London in 1932, and it was again published with a plan, section, and illustrations in my *Early Anglo-Saxon Art and Archaeology*, pp. 261–2, fig. 11 and pl. VIII.

The excavation of the main part of the pit itself necessitated the removal of many tons of filling and the lengthy process of reaching the bottom of the pit caused the house to be aptly dubbed 'barathrum'. Throughout the filling broken bones and sherds came to light. In the centre at the same level as the hearth-recess in the north-east corner were several other large stones with sherds, a small bronze disk, and part of a comb around them.

Outside the north-east corner, about 2 ft. deep in the gravel, at a level corresponding to the foot of the slope on the southern side, was a circular recess cut into the gravel containing remains of a hearth built of rough blocks of stone. In this was found a third brass coin of Constantinus I (Cohen. 246 TRS∪) of the Trèves mint. At a depth of 6½ ft. and near the south side there appeared other large stones together with an antler, the tines of which bore marks of cutting, set upright amongst them. These in turn were found to rest upon a mass of clay 1½ ft. in thickness. The clay consisted of first a layer of clay mixed with pebbles, then a thin layer of pure clay thickly impregnated with charcoal followed by two similar layers below. At the top the clay was spread over a wide area, but below it was confined within the limits of a fence-like construction 1 ft. high, formed of stakes of oak interwoven with stout branches of alder and oak, resembling a large basket without a bottom (pl. XXI *a* and fig. 3). It was roughly oval in shape, measuring *c.* 4 ft. from north to south by 2¼ from east to west. On the east side the fence had at some time broken down (some of the sticks were found lying on the gravel) and the gap had been filled and the side strengthened with stones. One ft. northward lay an oak log, 4 ft. long, with a flat upper surface and sawn across at one end; it was held in position by three oaken stakes such as had been used to make the basket. The stakes measured about 1½ ft. in length and had all been roughly sharpened and neatly sawn across at the top. When first uncovered the clay mass covered the log entirely, but in its original state it was evidently heaped above the basket and subsequent pressure of the filling had squeezed it out on all sides. From the uppermost layer of the clay and near by were recovered sufficient sherds to allow of the restoration of a large roughly fashioned pot 11 in. high and 13 in. in diameter (pl. XXI *b*). From its position it must, as will appear, have fallen from an upper floor on the collapse of the latter.

In the first report (*Archaeologia*, lxxiii, 187) attention was drawn to the account of houses in use among Germanic peoples with an underground room in which household operations were performed, and it seems here that we have such a construction.

As already noticed, on the south side a deep groove was observed in the middle of the south ledge at the top of the gravel. Exactly corresponding to it on the north side was a large hole close to the top of the gravel and apparently smaller holes on each side. It would seem that there was originally an upper floor constructed of timber and that this floor was served by a hearth which for safety's sake was placed in a recess in the gravel excavated at one corner of the floor. Below this floor was a basement room, some 4½ to 5 ft. high.

The floor of the excavation was unequal in depth. In the northern half the gravel had only been removed to a depth of 6½ ft., and this part of the floor formed a bench above the southern half in which stood the log-seat and the hurdled pen with its clay content at the full depth of 7½ ft.

What was the purpose of this deep basement-room? At the time its meaning escaped me, but the interpretation of it and its contents was made perfectly clear by later local discoveries of an earlier age at Dorchester, Oxfordshire. In 1936, 1937, and 1938, three deep pits, similarly excavated into the gravel to water-level, came to light in Messrs. Allen & Son's gravel-pit in that parish.[1] At the bottom of each was a well-made wooden, barrel-like structure, in one case composed of upright staves erected around a square mortised frame; access to one of the pits was provided by a stairway of slabs set in the gravel. In these casings or barrels were found small quantities of blue clay.[2] The rude basket-like pen at Sutton Courtenay with its large mass of clay presents an exact parallel.

In close proximity to the pits at Dorchester two kilns with remains of Roman pottery were also found, and, though there was no absolute proof of any definite relation in time between them and the pits, the pits were manifestly used for the storage of pots of clay at water-level in order to keep it in fit condition for working.

At Sutton Courtenay there was no evidence of the secondary process of firing, but that House XXI served as a potter's workshop is beyond all doubt. Had the antler found on top of the clay had some of its tines removed as had happened to those found in the prehistoric pit J,[3] it could safely be regarded as one of the potter's implements and still may have been such. He or she was, however, provided with a convenient seat from which to work up the clay. The layers of charcoal may have formed part of the process, being added to supply at once a gritty and combustible admixture suited to a low degree of firing to which Anglo-Saxon pottery was evidently subjected.

Of this process in the manufacture of Saxon pottery unfortunately no evidence exists; but the discovery at Sutton Courtenay does seem to throw more light upon the economy of village life in that age. The amount of clay collected in the pit was far beyond any quantity that could be needed for the pottery of a single household; it could easily have supplied the temporary requirements of the whole village. But whether the house was the workshop of the village potter or was available for the use of any member of the community who wished to replace or augment the household crockery is naturally unknown. The variety of stamps on jars from large cremation-cemeteries favours the latter view; the occasional repetitions may simply point to a particular individual rather than to a professional potter. Unfortunately the number of stamped sherds found at Sutton Courtenay throughout the excavations are insufficient to give any guide on this point.

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[1] *Oxoniensia*, i, 90, pl. XVII *b* and iii, 165, pl. XIII *a*.

[2] A basket, similarly but more elaborately constructed, found at Leicester is figured in *Proc. Soc. Ant.*, N.S., i, 245. As shown by the strata in which it was set, it had been employed for a similar purpose.

[3] *Archaeologia*, lxxiii, 152.

The depth of the basement-room was conditioned by the same considerations as an even greater depth at Dorchester, the necessity of reaching a constant water-level. At the time of its final clearance in April, 1929, the water began to ooze up so soon as the stakes were laid bare. Probably the water-level stood higher in Saxon times, since it has to be remembered that in spite of the presence of numerous springs in the gravel, old and modern workings in every direction around the point at which this house stood have tapped and drained the water from that part of the site. This being so, the pen and its contents must often have been submerged.[1]

One more point has to be noted in connexion with this discovery. Elsewhere in the village signs have been observed of evacuation and abandonment of the site. The potter's house brings additional evidence in support of that view. It is unlikely that so large a quantity of clay should have been collected, only to be left unused, unless some ulterior cause had supervened to bring to naught the labour involved in carrying up the material even from so short a distance as the low-lying ground towards the Thames on the northern edge of the site, or from the Drayton brook westwards.

The finds from this house, apart from those already mentioned, were meagre. They consisted of sherds, a few of them decorated, others belonging to a hand-made vase of hard, gritty ware, unlike the usual quality of Saxon wares; pieces of Roman tiles; broken bones in large quantities; a leg-bone trimmed to serve as a handle for some largish implement; an epiphysis of an ox-femur cut flat below to make a spindle-whorl but not perforated (pl. XXII *a*, *n*), the point sawn from the tine of an antler and bored for use as a handle (pl. XXII *a*, *g*); a gaming-piece cut out of a Roman sherd (pl. XXII *a*, *l*), and a pig's tooth with the fang shaved to a point.

House XXII

It was impossible wholly to explore this site before it was cleared away, and, though here included in the list of houses, it probably should be rather designated as a shed, since it had not the usual sunken floor and no large post-holes were found. Instead were seven small post-holes forming a right angle with five on the north side spaced at 6, 9, 15, and 20 ft. respectively from the corner hole at the north-east angle, and on the east side two others at 9½ and 15 ft. from the same corner. The narrow gap between the second and third holes on the north side may have been a doorway.

Within the area bounded by these holes was found a considerable quantity of sherds, some decorated and others belonging to a thin vase with a well-pronounced angle at the junction of the shoulder and the belly and showing signs of having been

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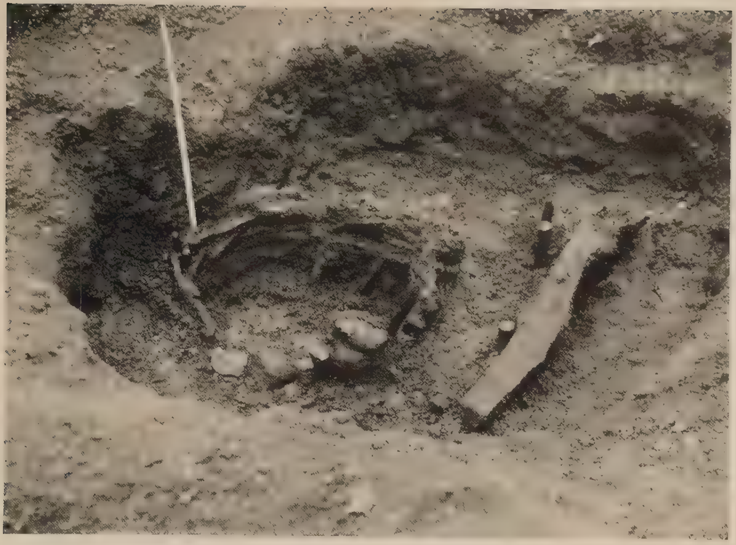
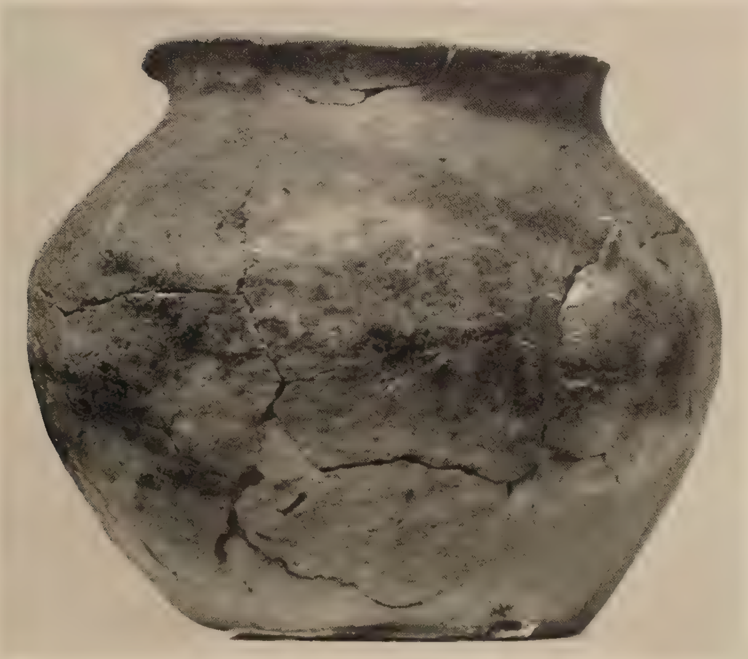
[1] The woodwork after a short exposure was observed to be richly coated with 'vivianite'. On the question of the water-level see *Oxoniensia*, iii, 167.



a. View of potter's puddling-hole in House XXI



b. Cooking-pot from House XXI

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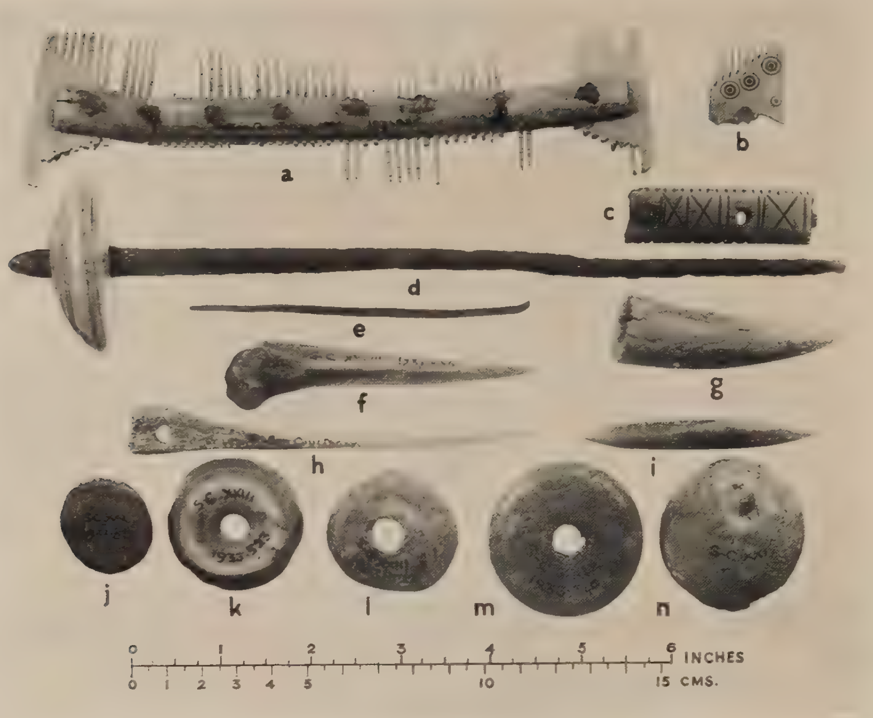
PLATE XXII


a
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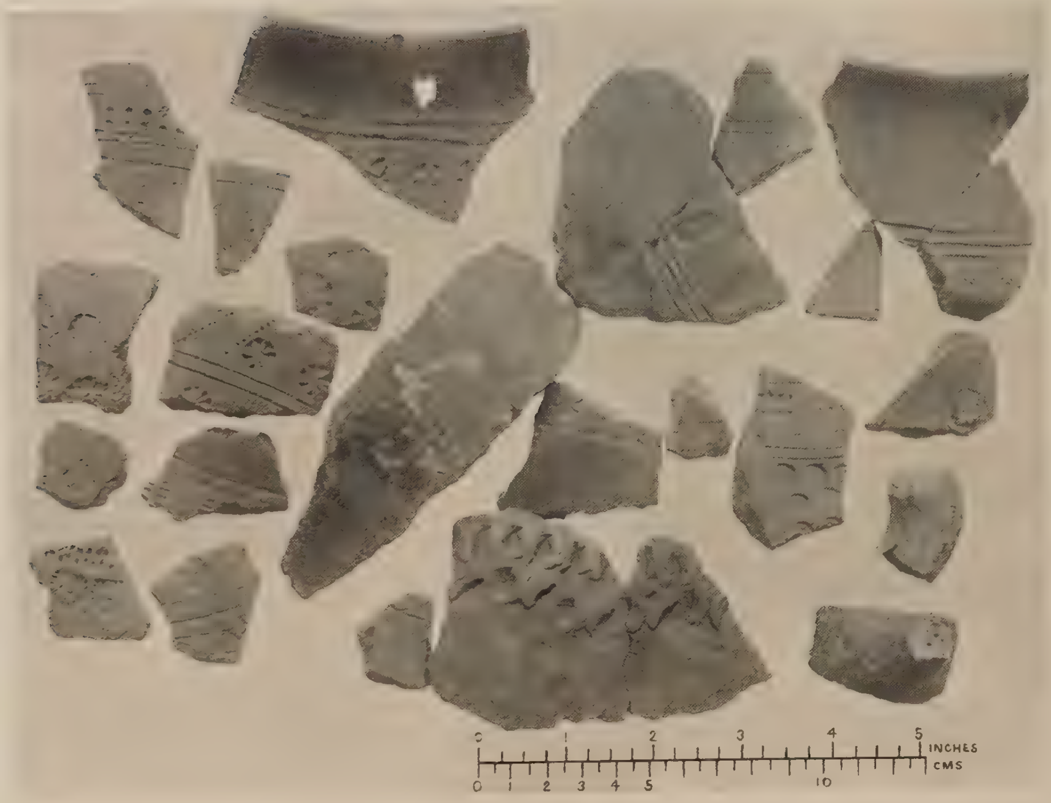
a. Small objects (½)


0 1 2 3 4 5 INCHES
0 1 2 3 4 5 10 CMS

b. Stamped ware (½)

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subjected to considerable heat. These lay beside some large stones, presumably the remains of a hearth. Two complete and several fragments of loom-weights, a well-made but abraded spindle-whorl with turned lines, and lastly an iron spindle 9 in. long (pl. XXII *a*, *d*) (bent when found, but retaining sufficient original metal to allow it to be almost straightened to its original form by Mr. W. H. Young's skill). From the same area came a small, rough Roman vase (fig. 8*a*) 3½ in. high, containing a small bronze coin of Tetricus. There were very few of the usual broken bones.

The spindle is a rod, round in section, 9 in. long, with a blunt upper end, gradually thickening towards the lower end where above a blunt point the rod has been hammered to a square section for a distance of an inch on which the whorl was wedged tight.

House XXIII (fig. 4)

A small cottage, rectangular in plan, 10 ft. long by 8 ft. wide and 2 ft. deep, orientated east to west, with a post-hole, 3 ft. deep in the gravel, in the middle of each short wall. The filling was of the typical gritty material mingled with charcoal. Near the west end was a large collection of stone blocks, covering an irregular area about 3¾ ft. in length across the floor, and 2 ft. wide, the edge nearest the western post-hole being slightly convex and that towards the middle of the floor correspondingly concave. The top of the stones stood about 1 ft. above the gravel, but may have been flush with the floor of the house after a certain amount of debris had accumulated upon it.

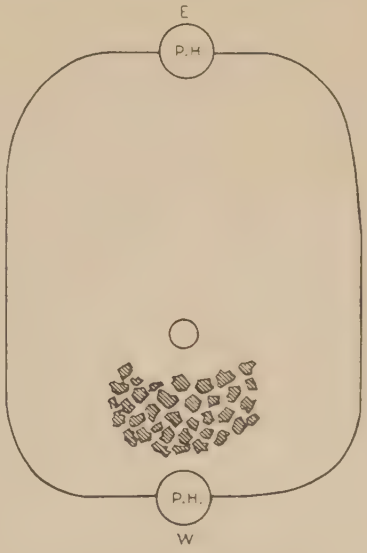

FIG. 4. Plan of House XXIII (scale ¼ in. to 1 ft.)

Very few broken bones occurred in the filling, but a fair number of sherds. Among those of Saxon date were some with stamped ornament and a portion of a rim with a pouch luted on the external wall of the vase immediately protecting a largish hole in the wall near the bottom of the pouch (fig. 10*d*). A complete vase decorated with stamped roundels and furnished with a somewhat similar but smaller spout was found at Richborough in 1931 and a further imperfect example in House XXIV. There were also several fragments of Roman tiles, the base of a Roman vase, pared down to make a 'pot-lid', and finally two spindle-whorls, both 1½ in. in diameter, one of lead, the other fashioned from the base of a small Roman vase of red ware (pl. XXII *a*, *k*, and *l*).

Decorated sherds belonging to different jars have been fitted to others which came from Houses XXII and XXIV.

House XXIV (fig. 5)

Also approximately rectangular in plan, measuring 11½ ft. in length, from 7¼ to 8 ft. in width and 2 ft. deep, of which only 6 in. into the gravel; orientated ESE. to WNW. There were no less than four post-holes and those irregularly placed. Those which appeared to be the principal holes corresponded to a line about 6 in. north of the median line of the floor. Of the other two, one at the east end was 1½ ft. north and that at the west end 3 ft. north of the main holes. They varied in width from 12 to 15 in. and in depth from 15 to 21 in.

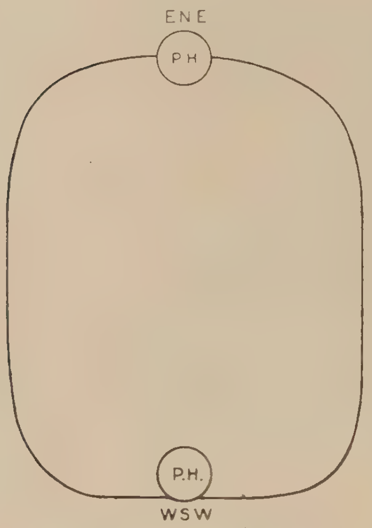

FIG. 5. Plan of House XXIV (scale ¼ in. to 1 ft.)

The filling contained broken bones, a fragment of a loom-weight, iron nails, and numerous sherds. Of these some belonged to a round-bellied vase with an out-turned rim, others to a well-burnished black pot with a plain, narrow rim, and others again to a black vase with a pouch (fig. 10*c*), like that found in House XXII. Above the pouch the rim is curved upwards in the manner of the perforated handle found in House XVI.[1] A small round-bottomed cup with thick walls and a groove with finger-tip impressions below a thin rim (fig. 8*b*) demonstrates only too clearly the little difference that exists in some of the simpler forms of primitive pottery. Except for the paste—and even in that respect the difference is very slight—the cup might almost compare with some neolithic forms.

Saxon burial (Pit α). At the time Pit R was excavated the presence of another circular hole was detected some 15 yds. to the south, with nothing on the surface of the gravel to suggest that it differed in any way from the numerous prehistoric pits which had come to light on the site, beyond the fact that it seemed to be a little larger than the rest. This actually proved to be so, since it measured 6½ ft. in diameter. From the first, however, occasional Saxon sherds were found in the filling and 9 in. from the top of the gravel on the east side of the pit the toes of a human skeleton (which examination proved to be that of a woman) lay close against the wall of the pit. The remainder of the skeleton did not lie at the same level. The legs were traced downwards until the body came to light lying on the floor of the pit at 4 ft. below the surface of the gravel. The body was stretched for about 3½ ft. across the pit, in a slightly twisted position with the head facing south, and with the arms half out-stretched before the body towards the remains of the skeleton of an infant. The normal filling of the pit, throughout which Saxon sherds occurred, consisted of earthy material which yielded easily to the fork, but behind the woman's head and over the body of the child there was a layer about 6 in. thick, composed of earth and gravel which must have been stamped hard before the rest of the pit was filled, and could only be broken up with difficulty. In that behind the woman's head were three animal skulls, two oxen and a horse.[2]

Interpretation of this burial, so entirely different from any normal Anglo-Saxon interment, is necessarily speculative. It may have been hurriedly carried out under stress of the conditions of evacuation or destruction of the settlement, signs of which

[1] *Archaeologia*, lxxvi, pl. VIII, fig. 2.

[2] Prof. B. W. Tucker, M.A., Department of Comparative Anatomy, University of Oxford, kindly reported on the bones from this and from other parts of the site.

have been recorded elsewhere in these reports. Nevertheless the size of the pit seems needlessly large in such an event. On the other hand it may fairly be wondered whether some domestic tragedy does not lie behind this abnormal and, in a sense, disorderly interment.

House XXV

Of this house some 3 ft. of the west end were destroyed at the time of its first discovery. The remainder measured 12½ ft. from north to south and 9 ft. from east to west, so that the ground-plan must have been approximately square. The bottom lay 2 ft. from the surface. A post-hole, 2 ft. deep and 2 ft. from the middle of the east wall, proves the house to have been orientated east to west. From the filling were recovered a double-toothed comb in a comparatively good state of preservation, the bronze pin of a brooch (pl. XXII *a* and *e*), broken bones of food, and a small quantity of sherds. Two small fragments were decorated; others belonged to the base and wall of a moderately large vessel. These and the bulk of the remainder are of the usual Saxon fabric, smooth, greasy ware with pittings left by the burning-out of the constituent vegetable matter. One largish sherd, however, was of black, gritty ware, unlike Saxon pottery, and presumably to be set down with the hard, thin pottery found in House XVI[1] and other stray pieces of unusual character to a native technique of mixing the clay for working. The base of a Roman vase with a small hollow foot, like that used to fashion the whorl found in House XXIII, had had its upper edge trimmed to make a toy cup? or gaming piece.

Pit β. A short distance from this House (XXV) was a circular pit, proved by the few sherds found therein to be of Saxon date. It measured 5 ft. in diameter and 3 ft. deep and had apparently contained a hearth, which had had to be gradually raised as the bottom of the pit filled with debris. Though much smaller, the pit would seem to be analogous to those discovered near other houses, like House VII. The filling contained, apart from the stones which had formed the hearth at its different levels and a large quantity of broken bones, the horn of a short-horn ox, which has been partly sawn and then broken off from its root, a sheep-tibia, polished by use as a spool, and a small gaming-piece, ¾ in. in diameter, cut from a sherd of Samian ware decorated with a rouletted pattern.

House XXVI

Its position is shown on the plan. Only a very small portion remained and that barren of remains.

House XXVII (fig. 6)

Orientated NE. to SW.; oval in form, measuring 10 ft. by 8, with the floor sunk 9 in. into the gravel and 2 ft. 3 in. below the modern surface. It had a post-hole at either end, 18 in. deep, and 1 ft. inwards from the northern hole was a third of the same depth. Towards the middle of the western side a collection of pieces of Roman tile, stones, and charcoal possibly indicate the position of the hearth.

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[1] *Archaeologia*, lxxvi, 79.

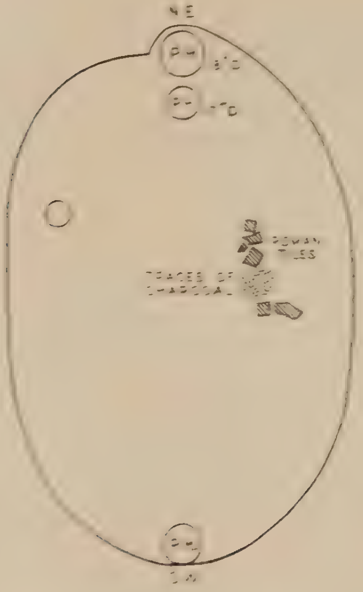


Fig. 6. Plan of House XXVII
(scale ¼ in. to 1 ft.)

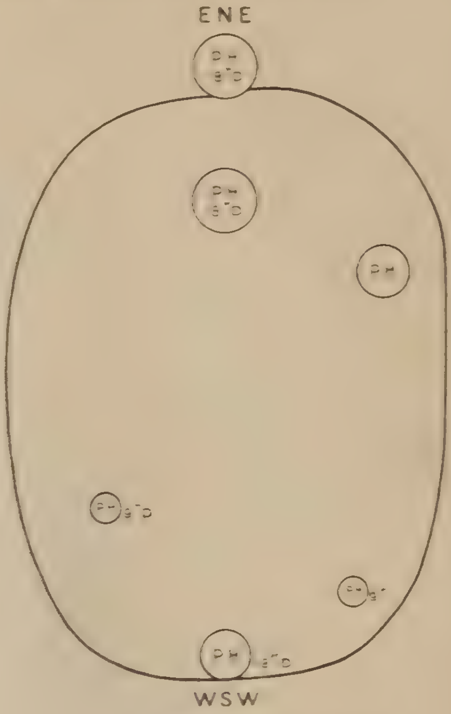
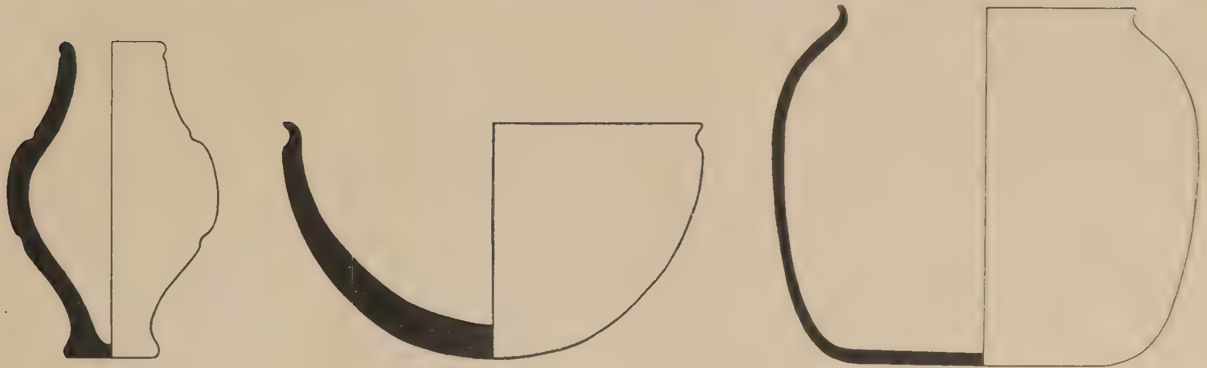


Fig. 7. Plan of House XXVIII
(scale ¼ in. to 1 ft.)

House XXVIII (fig. 7)

Roughly rectangular, with rounded ends; 12½ ft. long by 10 ft. wide; orientated ENE.–WSW. At the east end, outside the periphery of the walls, a large post-hole, 21 in. in diameter and 18 in. deep, containing a large packing stone. A little further inwards, a second hole, 16 in. in diameter, and 18 in. deep. At the west end and within the floor a third, 12 in. in diameter and 18 in. deep. In addition, there was another hole towards the south-east corner, 15 in. in diameter, and 2½ ft. distant from the inner hole at the east end. Two small holes are also shown on the plan at the west end, 6–8 in. in diameter and 6 in. deep. The floor level was 18 in. below the modern surface.

From the filling were recovered a fair quantity of bones, including a pig's skull and tusk, and sherds, many of the latter belonging to a very crude vase, with an unusually large base; a restoration is shown in fig. 8 *c*: also a short, thick heddle-stick of bone, 2½ in. long (pl. XXII *a*, *i*), a stout bone awl, 3¼ in. long, made from the leg-bone of a sheep, with the epiphysis left as a handle (pl. XXII *a*, *f*); two tips of tines sawn off from an antler; a piece of the bone bar of a comb with engraved linear decoration (pl. XXII *a*, *c*) and an iron rivet in position; the base of a grey Roman vase; an imperfect iron knife; and three pieces of flint, two of them scrapers.



a. Roman goblet (House XXII) (½)

b. Saxon bowl (House XXIV) (½)

c. Saxon cooking pot (restoration) (House XXVIII) (¼)

Fig. 8

House XXIX (fig. 9)

Only a short distance north of the last; orientated east to west; also roughly rectangular, but somewhat rounded at the east end. It measured 10 ft. in length and varied from 7½ to 8 ft. in width. The floor was sunk 9 in. into the gravel. The post-holes at the east and west ends, respectively 2 and 1½ ft. in diameter and 18 and 21 in. deep, were excavated partly into the walls. In front of the eastern hole was a large stone; a large square block near the north-west corner may have lain originally in front of the western hole. Close against it lay a flat bone spindle-whorl (pl. XXII *m*). Otherwise the filling only yielded a meagre handful of sherds and a few bones. It was noted here that the filling was entirely composed of earth with none of the grey, gritty material commonly observed in the houses in the northern part of the site. The sherds and bones were mixed up with the earth; at one place the lower part of an ox-leg with the ulna carpals and metacarpals and one member of the hoof lay articulated together, where they had been thrown down on the floor with the flesh still on them. In short the whole house gave the impression of brief occupation filled at a later date with material shovelled in from outside. In the long walls were six notches or holes, three on each side, which had the appearance of having served to receive the main rafters on which was laid the thatching of the roof.

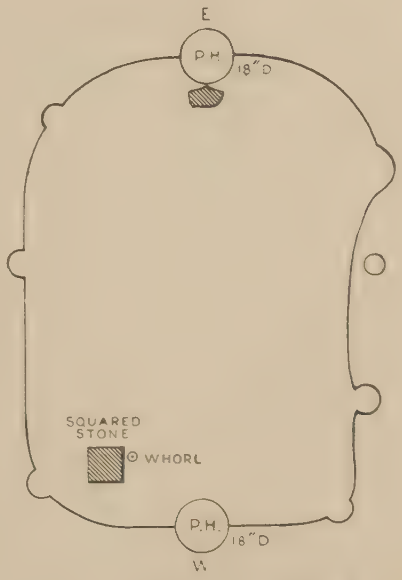


Fig. 9. Plan of House XXIX (scale ¼ in.=1 ft.)

Houses XXX and XXXI

Only the position of these and a very rough idea of their dimensions could be ascertained. No finds were recorded. It will be noted that House XXXI lay in part across a ditch the course of which could be traced back to Drayton East Way. From its position and trend it evidently connected farther north with that on which House X encroached.

West side of Milton Road

By kind permission of Mr. A. T. Loyd, of Lockinge, we explored parts of a gravel-pit on the west side of the road leading towards Milton. A portion of what at the time was thought to be a house (W.3) was examined, but not enough remained to allow its original dimensions to be ascertained. Its orientation appeared to have been north and south. It may, however, have been no more than a slight indent in the edge of the western of the parallel ditches, the eastern counterpart of which we had partially explored on the other side of the road.[1]

Nothing but Saxon sherds was found and those almost without exception in the upper layers, and mostly on the east side of the ditch. Like that east of the road it seemed almost certainly to be pre-Saxon, but nothing was discovered to prove that it, like the other, belonged to a prehistoric age. The position, however, shows that it corresponds with the western ditch on Major Allen's air photograph.[2]

Among the sherds the only specimens of note were several belonging to a vase decorated round the upper half with a broad band of close-set vertical finger-pinchings, a type of decoration not met with in our earlier work, though one was afterwards found in House XXIV. Other sherds belonging to a very thick pot of large size have vertical combed decoration close to the base, again a technique unknown from earlier excavations, until encountered in House XXII.

Pottery

The houses described in this report have yielded their quota of pottery, but, taken as a whole, in smaller quantities than those at the northern end of the village. As usual, it is fragmentary; only the large cooking-pot (pl. XXI *b*) from House XXI was recovered in anything approaching completeness. The small round-bottom, black bowl from House XXIV (fig. 8 *b*) admitted of easy restoration; unusual is its hollow rim decorated with pie-crust mouldings. The more interesting types represented by sherds of varying size included one from House XXVII (fig. 10 *a*) with a perforated handle constructed like that from House XVI. The new sherd, however, is large enough to warrant an attempt at restoration (fig. 10 *b*) with an inset showing a side-view of both handles.

Akin to this type are two examples of that curious invention in which the perforation is externally masked by a pouch (fig. 10 *c–d* and 12). The purpose of this has been interpreted as a device to protect the handle from burning. If so, the handle must either have been of wood?, or, more probably, a knotted cord or thong. The upper internal edge of the hole of the example from House XXIV (fig. 10 *c*) shows signs of wear by some quite thin material; the second specimen, however, shows no signs of attrition. There can be little doubt that such vessels with perforated handles are a translation into a cheaper ware of the bronze bowl with a pair of perforated triangular ears frequently encountered in Anglo-Saxon graves.

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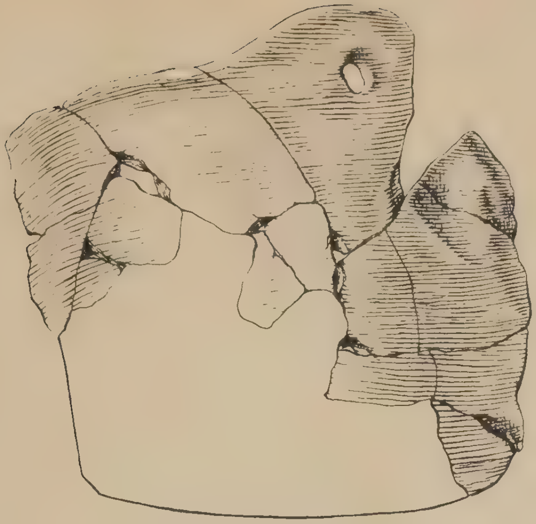
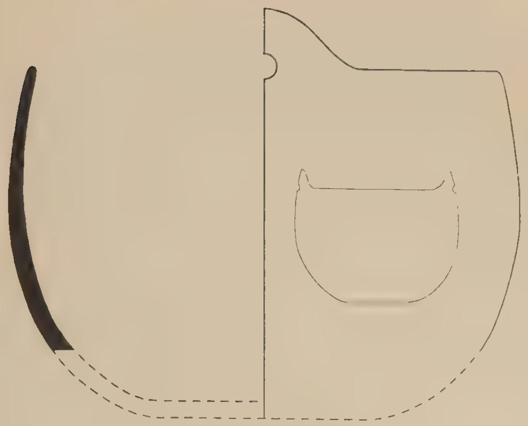
[1] *Antiq. Journ.* xiv, 415, pl. LVIII.

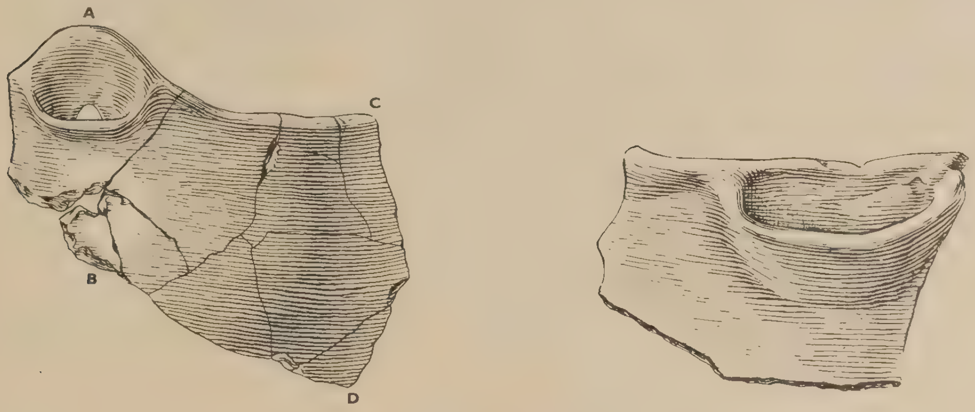
[2] *Archaeologia*, lxxvi, pl. VIII, fig. 2.



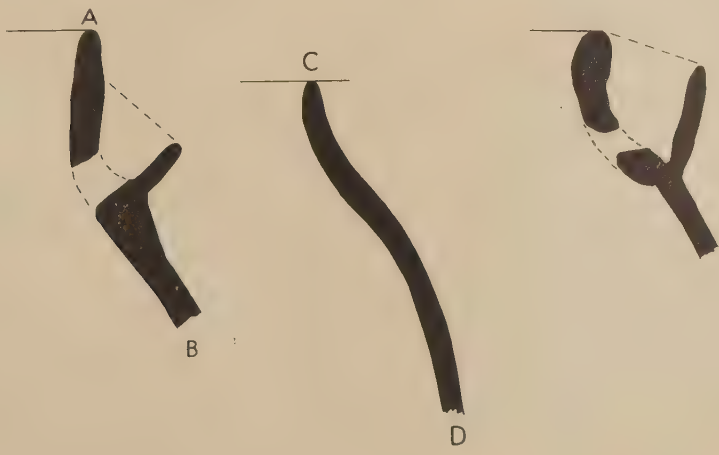
a. Saxon pottery with perforated handles
(House XXVII) (½)



b. Section of Saxon pottery vessel *a*
(House XXVII) (¼)



Saxon pots with added pouches
c. From House XXIV (½)
d. From House XXIII (½)



e. Sections of above pottery with pouched perforated lugs
(Houses XXIV and XXIII) (½)

Fig. 10

As before, the amount of decorated wares (pls. xxii *b* and xxiii) is very small and consists entirely of fragments. Three sherds collected from Houses XXIII and XXIV have belonged to a large vessel of a peculiarly greasy fabric with thin walls (pl. xxii *b*, middle); it is decorated with shallow, oval depressions above the shoulder and again below within pendent triangles, where they alternate with other triangles filled with ✠ stamps.

One sherd from a wide-mouthed bowl is ornamented with rosette-form stamps between which are sloping lines of dots in pairs, a style of decoration reminiscent of the latest Romano-British wares.

Mention has already been made of sherds with finger-and-nail decoration. Although not previously noted at Sutton Courtenay it is not unknown elsewhere. It occurs on a small bowl or cup from West Stow (Ashmolean Museum, 1932.887) and is known in contemporary pottery in Norway.[1] The usual application of the technique is either as simple nail impression or of finger-tip and nail combined (pl. xxiii). More ambitious is the method employed on the sherds from the West Trench (pl. xxiii, middle; all from one vase); there an attempt has been made to produce an orderly band of > pattern by pinching up the clay with two fingers in such a way as to draw the ridges so formed to a point in one direction.

As has been suggested in earlier reports, the decorated wares appear to belong to the initial period of occupation. Later the rigours of settlement in a hostile country precluded anything beyond the fulfilment of the simplest needs of daily life; aesthetic considerations had largely to be laid aside.

General conclusions

Reference to the plan seems to indicate that the village, traces of thirty-three house-sites in which have been revealed during the excavations, may have been of quite considerable size. Those houses form as it were two sides of a frame of which the other two sides would be the Drayton–Milton road and the accommodation-road known as Drayton East Way. By far the larger portion inclosed within those boundaries had been disturbed by gravel-digging before the presence of Anglo-Saxon occupation became known. That the disturbed portion had also contained house-sites appears more than probable in view of the detection of two such sites west of the Drayton–Milton road, which even in Saxon times may have existed as a track through the settlement. It should be noted that the sites W.1 and W.2 were detected in two small fields the greater part of which had already been exploited for gravel. The discovery of a large cemetery on the scale of that more recently explored at Abingdon[2] is a hope which the future may fulfil.

In regard to the date of the village the evidence, slight enough, but supported by that of the Abingdon cemetery, suggests one around the close of the fifth century for its first occupation. Further that, as indicated by the masses of sherds recovered, the occupation continued for some indefinite period, and finally that at some date the settlement was either temporarily or permanently evacuated.

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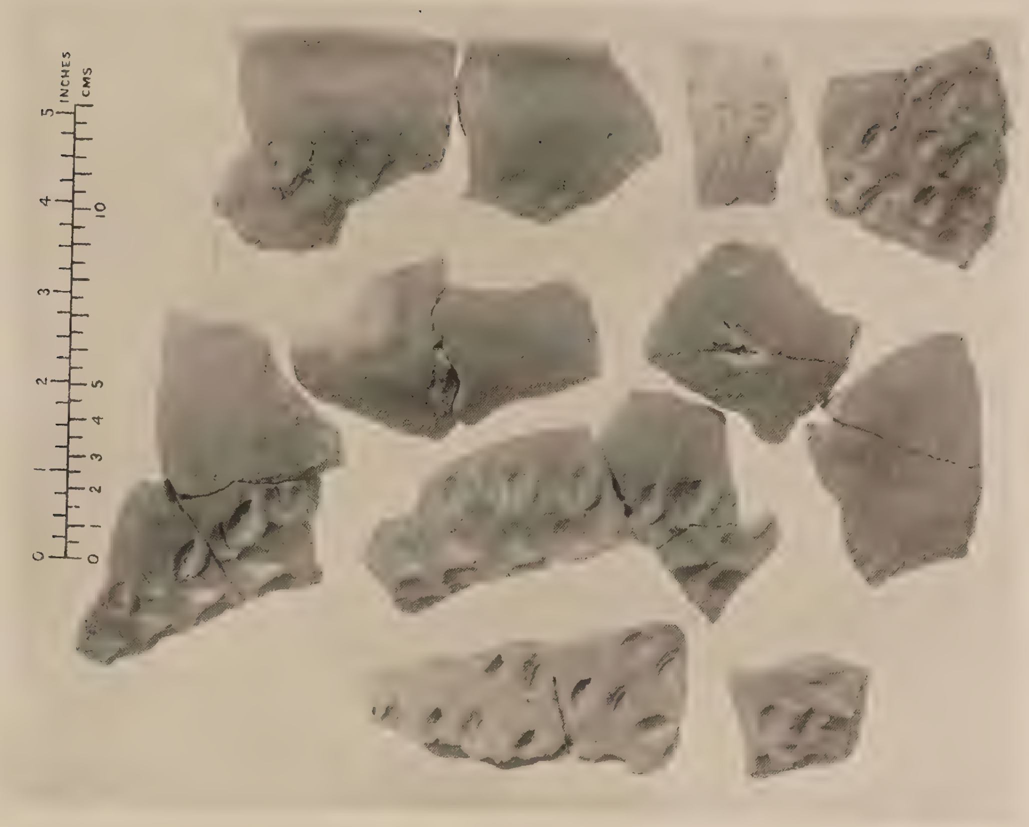
[1] Sigurd Grieg, *Jernaldershus på Lista*, pls. xxi, 2 and 6; xxiii, 2; xxv, 2.

[2] E. T. Leeds and D. B. Harden, *An Anglo-Saxon Cemetery at Abingdon, Berkshire.*


INCHES
CMS
0
1
2
3
4
5
0
1
2
3
4
5
10

'Finger-tip' wares: the middle row from one vessel ($\frac{1}{2}$)

It is worth noting in this connexion that south-west of a line which closely coincides with the Roman road from Speen to Cirencester, with the two large cemeteries of East Shefford near the one end and Fairford at the other, no traces of extensive occupation have come to light. Such minor traces as are known, for example a burial at Longcot, Berks., with a large, pear-shaped amethyst bead (Ashmolean Museum) and another at Coleshill, Wilts.,[1] fall unquestionably late in the pagan period. Other graves beyond the same line at Mildenhall[2] and Basset Down, Wilts.[3] yielded brooches certainly not older than late sixth century. All these finds come from what appear to have been settlements of no long duration.[4]

In the main it would seem that the south-westerly advance from East Anglia, by which I have suggested that the Upper Thames came to be occupied in the first instance, halted at the Thames. Beyond it certain bridge-head settlements like Long Wittenham and Sutton Courtenay were established, but farther than that point advance was spasmodic and precarious, encountering almost continuous resistance from a hard core of native opposition, during one of whose attacks the Sutton Courtenay village seems to have been overrun and either exterminated or temporarily put out of action.

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[1] *Antiq. Journ.* xiii, 167–8 (W. D. Passmore Coll.).

[2] *Wilts. Arch. Mag.* xxxvii, 611–12, fig. facing 611 (Devises Mus.).

[3] *Ibid.*, xxviii, 107; *Cat. Ant. Devizes Museum*, Part II (1911), 118, pl. LVII, 3–4.

[4] It is here taken as now generally accepted that the cemetery at Harnham Hill, Salisbury, represents a Juto-Saxon effort at penetration from the direction of Southampton.

Châtelperron: a New Survey of its Palaeolithic Industry

By A. D. LACAILLE, Esq., F.S.A.

With an Appendix on a Human Skull

By Professor A. J. E. CAVE, M.D., D.Sc.

Read 29th January 1942

SOME years ago the Wellcome Historical Medical Museum, London, acquired the prehistoric collections resulting from the late Dr. Joseph Bailleau's excavations and researches in the Allier, that *département* which forms part of the old province of Bourbonnais, Central France (fig. 1). The most important series is the classic one from a multiple cave, La Grotte des Fées,[1] in the *commune* of Châtelperron. Stone and bone artifacts from here have long been held to typify the first stage of French Upper Palaeolithic culture.[2] As such, the character of the most outstanding part of this industrial output is now familiar from innumerable references based on the writings of the Abbé H. Breuil, who in 1911[3] drew a number of inferences from the artifacts. These views have been fully supported since by evidence from elsewhere. However, credit is due in the first place to Bailleau for having attracted attention to the archaeology of Châtelperron. Lecturing in 1866 he first mentioned his researches,[4] and some years later he published a more detailed account of the discoveries,[5] but in the state of knowledge then prevailing the full significance of the objects could not be appreciated.[6] Now, having examined virtually all the known part of the Bailleau collection, and having classified quantities of other material from Châtelperron, added in different ways since Breuil referred to some of the relics, the present writer thinks that new features and certain aspects may usefully be brought to notice. That he can supplement previous communications is due to the opportunity he has had to study the remarkable collection handed over by the executors of Dr. Bailleau's estate and also to information given him on the Palaeolithic lots by the Abbé G.-H. Pépin, Curé of Neuvy-lès-Moulins (Allier) and M. R. Sadourny, Moulins (Allier).

HISTORICAL

La Grotte des Fées is situated near the marches of the *communes* of Vaumas and Châtelperron. It comprises several caves converging into a common aperture, facing east and south-east, in a tree-covered promontory composed of lacustrine limestone stretching in the former bottom of the Bourbonnais Miocene lake, now luxuriant meadow-land. The location, some 20 ft. above, and 120 yds. from the Châtel rivulet, a feeder of the Besbre, a left-bank tributary of the River Loire, is singularly attractive. The vaulting of the most easterly cave collapsed at a relatively recent date, bringing down much debris to the base of the escarpment. Between 1840 and 1845 the cutting of a light railway in the valley of the Châtel from Dompierre to Bert through the material fallen from this and neighbouring caves revealed quantities of mammalian bones. These were collected by M. Poirier, director of the local iron-mines, and they formed the nucleus of what grew into an imposing palaeontological collection. On M. Poirier's death the greater part of this collection, representative of a fauna contemporary with man living in early Upper Palaeolithic cultural conditions, was purchased by the Academy of Natural Science, Philadelphia, U.S.A.[1] The remainder passed to a local antiquary, M. Ernest Perrault, upon whose death it was dispersed. Fortunately, the loss to European science was made good, in part at least, by Dr. Bailleau's investigations at Châtelperron. It is pleasing to be able to note that the

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[1] The cave is known diversely in the locality as La Boîte aux Fées, La Cave aux Fées, and La Grotte des Fées. The last designation, being the best known from Dr. Bailleau's consistent reference to the main site as such, is adhered to in these pages.

[2] H. Breuil, 'Les subdivisions du Paléolithique Supérieur et leur signification', *Compte Rendu de la XIV*^{e} *Session* (2^{e} édition, 1937), Congrès international d'anthropologie et d'archéologie préhistoriques, Geneva, 1912 (reprint), p. 17.

[3] 'ÉTUDES DE MORPHOLOGIE PALÉOLITHIQUE. L'industrie de la grotte de Châtelperron (Allier) et d'autres gisements similaires', in *Revue anthropologique*, xxi, Janvier 1911, pp. 29–37.

[4] 'De l'Âge de la Pierre dans le Bourbonnais', *Assises scientifiques du Bourbonnais*, 1866; published at Moulins, 1867, p. 17.

[5] *L'Homme pendant la période quaternaire dans le Bourbonnais*, Moulins, 1872, pp. 14–32.

[6] G. de Mortillet, however, had already bracketed the Châtelperron output with other industries which he held to mark the earliest stage of the 'cave period'. *Matériaux*, iii, 1867, p. 191.

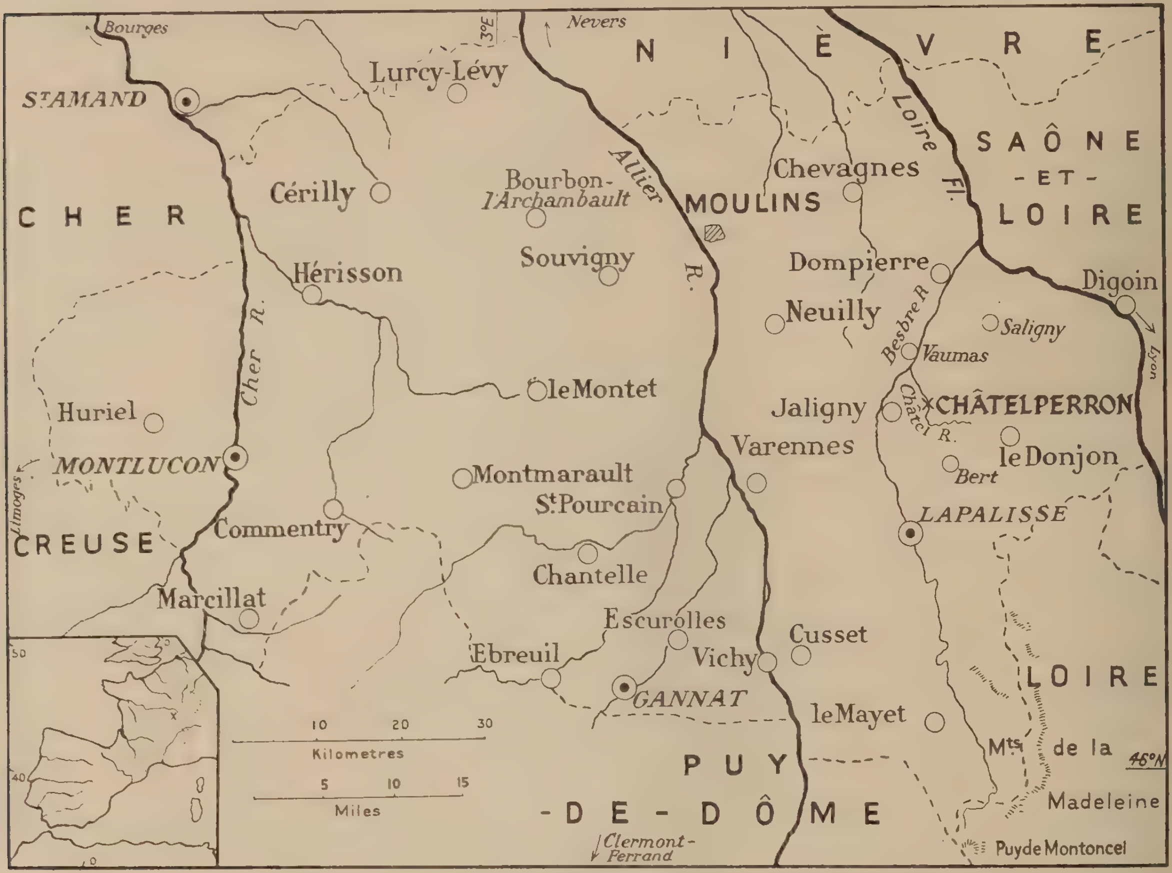
Bourges
3°E
Nevers
N I È V R E
Lurcy-Lévy
ST AMAND
Cérilly
Bourbon-l'Archambault
Allier R.
MOULINS
Chevagnes
Loire Fl.
SAÔNE -ET- LOIRE
C H E R
Souvigny
Hérisson
Dompierre
Digoin
Neuilly
Besbre R.
Saligny
Vaumas
Lyon
Cher R.
le Montet
Jaligny
Châtel R.
CHÂTELPERRON
Huriel
Varennes
le Donjon
Bert
MONTLUCON
Montmarault
St Pourcain
Limoges
LAPALISSE
CREUSE
Commentry
Chantelle
Marcillat
Escurolles
Cusset
Ebreuil
Vichy
LOIRE
GANNAT
le Mayet
10 20 30
Kilometres
5 10 15
Miles
PUY -DE-DÔME
Mts de la Madeleine
46°N
Clermont-Ferrand
Puy de Montoncel
50
40
0

FIG. 1. Sketch-map of the Allier *département*, showing the position of Châtelperron

faunal remains are preserved in London with the industrial products which the zealous doctor assembled.

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[1] George Grant MacCurdy, *Human Origins* (1924), ii, 340.

The presence of worked flints (which had been ignored by the bone collector) among the clearings and earth from M. Poirier's diggings struck Bailleau and suggested a search for more than the bones of extinct animals he came to seek. And, it may be added, the desire to inquire into the archaeological possibilities here was stimulated by the remembrance of a tour made in the district by MM. Ed. Lartet and H. Christy. Having therefore decided to undertake systematic researches, Bailleau began to excavate with the help of his friends, MM. Collas de Châtelperron, de Bure, and Fenaigre. Though the main part of the work was completed with the publication in 1872 of a report,[1] other interesting finds were subsequently made, and though written up they were never published. To those interested the notes were made available by M. Sadourny, one of Bailleau's heirs, from whom the collection was purchased in 1934.

Bailleau has told that the first cave (south-east) presented too many dangerous obstacles for complete excavation of the interior to be possible. Occupation of its fore-part, however, was indicated by the discovery of fragments of Gallo-Roman pottery.

Excavation of the adjacent central cave (east-north-east), which was completely filled in at the mouth before operations began, yielded numbers of animal bones. These occurred in two differently constituted layers. The upper was composed of earth brought down with the collapse of the roof, and of black vegetable and animal matter borne by infiltrating water. Its osseous contents were identified as belonging to modern species. The underlying deposit, consisting of broken stones cemented together by a reddish loamy sediment, or of huge blocks detached from the roof, was found to be mingled with Pleistocene animal bones, mostly fragmentary. From the circumstance that the bones of such animals as ox, aurochs, horse, and reindeer predominated, Bailleau inferred that this had been the den of great carnivores to which they carried their prey. A few remains of bear were found in the innermost recesses where bones of hyena and coprolites were particularly abundant. The excavations, though clearing the inside of the cave for a distance of nearly 50 ft., yielded no product of human industry. Bailleau, however, picked up two ear-bones, one of horse and the other of ox, which he believed had been intentionally perforated for suspension on the person (*infra*, p. 116). Unfortunately, these specimens have not been traced.

The third cave (north-east), its entrance about 7 ft. above that of its neighbours, opens on to a sort of platform surrounded by rocks. Here were the cave-dwellers' hearths as Bailleau and his colleagues determined by clearing the space measuring 20 ft. by 14 ft. This work involved the removal of a deposit, 3 ft. thick, consisting of hearth refuse, food remains in the form of broken and scraped bones, and numbers of flint artifacts, the whole covering schist slabs laid closely together. The quantity of enormous bones and huge mammoth-tusks which was revealed seems to have impressed the excavators as much as the flints. It was also ascertained by very thorough excavation that although the archaeological layer extended for a considerable distance inside the cave, whose floor declined rather steeply, the industrial relics were most numerous and concentrated round the hearths. From this Bailleau draws the picture of the troglodytes spending their post-prandial leisure round their fires fashioning implements and ornaments. In such a scene, and having in mind the character of the fauna represented by the bones from here, we would see people seeking what comfort they could in the uncongenial climatic conditions obtaining during a retreat of the Würm ice.

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[1] *Cit. supra*, p. 95, and n. 5.

From the undisturbed deposits and sealed hearths in this third cave Bailleau removed all the animal bones and artifacts he could, and he made a complete list of the former to record their contemporaneity with the archaeological contents. Prehistorians have long regarded this cave as the type-station of the Lower Aurignacian; and, as belonging to the early stage of the Upper Palaeolithic, some of its industrial products may be examined in certain of their aspects upon which new knowledge sheds fresh light.

FAUNA

Molluscan evidence is wanting from the Châtelperron caves, and no bird or fish bones are reported. Virtually all the mammalian remains testify to the rigorous conditions which reigned during the occupation of La Grotte des Fées by Palaeolithic man.

It is unnecessary, however, to describe the actual identified osseous remains recovered by Bailleau and now preserved in London. Suffice it to say that limb-bones, bones of the body, skulls, and parts of skulls including jaws, teeth, tusks, antlers, and tines are represented. Taken altogether they make a valuable and illuminating group. The following appear:

Arctomys marmotta, Marmot.
Bos antiquus (Bailleau, 1872, p. 26), Ox, very common.
Bos taurus urus (*Bison europaeus*, Bailleau, *ibid.*), Aurochs, fairly common.
Canis lupus, Wolf, common.
Canis vulpes, Fox, common.
Capra ibex, Ibex, one possible instance.
Cervus elaphus, Red Deer, very rare.
Elephas primigenius, Mammoth, common.
Equus caballus, Horse, very common.
Felis spelaea, Cave Lion, very rare.
Hyaena spelaea, Cave Hyena, very common.
Megaceros hibernicus, Giant Deer.
Rangifer tarandus, Reindeer, very common.
Rhinoceros tichorhinus, Woolly Rhinoceros.
Rupicapra tragus, Chamois, very rare.
Ursus arctos, Bear, one specimen.
Ursus spelaeus, Cave Bear, fairly common.

Many of the bones are mineralized and very brittle, some being reduced almost to a fossil state. In their present condition they are generally of a dull brownish or pinkish-grey hue.

The Giant Deer, remains of which had not been identified with certainty by Bailleau, though claimed by Poirier,[1] was definitely recognized by Dr. A. C. Stephen, Royal Scottish Museum, Edinburgh, and Professor Janikowski,[2] Edinburgh University. All the creatures named above were well adapted to, or capable of withstanding the severe climate which prevailed, for though the slight retreat (Laufen) of the Würm ice permitted of some mammalian migration, it did not bring about true interglacial conditions. Moreover, it is seen that the principal animals associated with the final 'cold' Mousterian are represented strongly at Châtelperron. Other features also suggest that, even when the Abri Audi transition is considered, the chronological difference cannot be great between the closing phase of the Mousterian and the opening one of the Aurignacian cultures.

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[1] Bailleau, 1872, *loc. cit. supra.*

[2] The author has to thank the above-named scientists for having kindly examined series of mammalian bones from Châtelperron. Their suggestions, especially in regard to the larger bone implements (*infra*, pp. 114–15), have been most helpful.

HUMAN CALVARIA

Despite keen scrutiny, no human remains were noticed by Bailleau at the Châtelperron caves during his early excavations, but his later work seems to have been more fortunate. The Abbé Pépin, who acted for the Bailleau trustees in the negotiations with the Wellcome Historical Medical Museum, and who for years had studied the deceased archaeologist's notes and carefully classified his prehistoric series, came upon material which throws added light on the early inhabitants of La Grotte des Fées. Among sundry stone artifacts, animal bones, lumps of cave-deposits and minerals collected at odd times subsequently at the site, M. Pépin detected a well-preserved human calvaria. Having no reason to doubt its provenance and being struck by its archaic appearance, M. Pépin assumed that, as its mineralized state and hue accorded well with most of the animal bones from Châtelperron, the cranial fragment was referable to the same period as the industrial products.

The specimen was submitted to Professor A. J. E. Cave at the Royal College of Surgeons of England, London. He and Dr. G. M. Morant, London University, agree as to the early Upper Palaeolithic age of this human relic. The report of Professor Cave, whom we have to thank, is appended.

THE INDUSTRY

Bailleau's principal paper is more valuable for its accurate account of the Châtelperron site and faunal remains than for the description it contains of the industry. Breuil, however, dealing with this side, stressed the distinctive facies of the groups into which many pieces fall. This facies is now known as the standard marking the step forward in Palaeolithic culture. As over thirty years have passed since Breuil examined the Châtelperron artifacts, it is felt that the comments which can now be made on several aspects are justified on the strength of recent progress and observations.

In spite of the vicissitudes in handling and transport between places of storage, the collection has not suffered too badly. The groups figured by Breuil are intact except for a few losses compensated by new material from Châtelperron which can be commented on.

Flint and bone were used for tools at La Grotte des Fées. The rock employed was brought here. It is mostly a poor fresh-water variety, light brown in shade, generally jasperized, and containing many inclusions. It was obtained at Tilly, Saligny (Allier), some eight miles from Châtelperron. Better flint, however, appears in some implements fashioned in material occurring as pebbles on the banks of the River Loire and from the argillaceous flint-ground at Vaumas and its neighbourhood. Various animal bones provided materials for sundry objects, among them crude tools, the recognition of which adds to our knowledge of the local industry and of the employment of bony substance simultaneously with stone.

Save for a few of its ingredients, the collection from Châtelperron offers scope for straightforward study. The only possibly problematic artifacts consist of bifacially worked implements which at first sight may seem out of place in a group of artifacts such as we have before us. These specimens and their implications will be duly considered.

STONE ARTIFACTS

The Châtelperron series cannot be described as a true blade-industry such as characterizes well-developed Upper Palaeolithic culture. But it would be incorrect to call it a flake-industry of the kinds which belong to earlier divisions of the Palaeolithic sequence. The assemblage really partakes of both and, as will be shown, it has much in common with the industrial groups from the lowest horizons of Upper Palaeolithic culture in south-western France. The lithic product of the industry of La Grotte des Fées is composed of flakes and flake-implements, blades and their derivatives, and the cores from which the primary materials were detached. Worn and retouched edges and abrasions prove that the possibilities of the last as accommodation-tools were not overlooked.

Large numbers of flakes are present, fairly heavy (e.g. pl. XXIV, nos. 1–2) and light specimens (e.g. pl. XXIV, nos. 3–4) being about equally represented. The margins of a considerable proportion are worn but bear no intentional trimming (pl. XXIV, nos. 5–10). Others, though shaped at their upper ends, and worn of edge, are but barely retouched, while many again are carefully trimmed to well-defined tool-forms. Fine and even very small blades are as numerous, but only certain forms are manufactured in them, usually by specialized dressing of the edges. Many, as the signs of utilization show, served just as struck from the parent cores without the application of secondary working.

Flakes, whether obtained in the simplest way, or so prepared on the core as to justify their being called blades, were the mainstay of the Châtelperron cave-dwellers. Some of the features of these stone products and of the tools worked in them may be examined, and comparisons drawn between them and the products of some other industries. The tools consist of a variety of scrapers, knives, and gravers. Unfortunately a complete census of the artifacts recovered at Bailleau's site cannot be made as, in addition to the discrepancies already mentioned, it has been ascertained that numbers of objects garnered in the course of early investigations have found their way into the hands of different collectors.[1]

Flakes, blades, and cores. It is evident from the size of the artifacts constituting the Châtelperron lithic assemblage that the raw material was generally too small to allow the artisans to extract many long flakes, such as are so numerous at several sites yielding typologically comparable products.

The first and crusted flakes struck from nodules testify by their irregularities to the intractable nature of much of the raw material, a fact amply confirmed by the proportion of workshop waste. Even the flakes from repeatedly struck cores, and the tools manufactured in the former, reflect the indocile character of the rock.

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[1] The Sturge Collection in the British Museum includes ten specimens from Châtelperron. Seven of these are blades and flakes, and three bones. *The Sturge Collection of Flints* (*Foreign*), British Museum, 1937, p. 118.

The butts of several squarish, short, and thick flakes (pl. XXIV, nos. 1, 2, and 21) bear facets, which are actually truncated flake-scars. These point to preparation of the striking-platform on the core as in Mousterian and Levalloisian industries. The presence of some cores, flake-scarred and approximating in shape to the 'tortoise-cores' common in contexts of these earlier cultures (e.g. pl. XXIV, no. 12), in the Châtelperron collection, corroborates the flake evidence for the survival of specialized technique. The flakes so obtained have prominent bulbs of percussion showing that they were probably detached from their parent cores by hammer-stones. To judge from similar bulbs, numbers of our more slender flakes (e.g. pl. XXIV, no. 19) were also struck from the core by hard hammers. Narrow, thin striking-platforms and soft swellings, or smothered bulbs, near the point of percussion distinguish the finer flakes and the thin delicate blades (pl. XXIV, nos. 3–5, 9–11), and suggest that they were removed from their cores by a bone or wooden punch. Nos. 6–8, of pl. XXIV, are thicker pieces and representative of a series detached from the flanks of long cores. The cores (pl. XXIV, nos. 12–16), from which all these flakes and blades derive, are fairly numerous. Most are of prismatic form and of the multi-platform variety (pl. XXIV, nos. 13–15), the last approaching the familiar pyramidal shape. Deep pits of percussion at the lower end of the flake-beds and shallow depressions respectively point to the use of hard or soft percussion tools in the process of flake-removal.

One naturally turns to the Vézère stations for parallels. A study of their industries shows that the closest matches to the different flakes referred to above occur in M. D. Peyrony's two early 'Périgordian' levels at La Ferrassie, Savignac-de-Miremont (Dordogne).[1] Although this archaeologist does not mention flakes with faceted butts and 'tortoise-cores' from these horizons, yet he has stressed short thick flakes and their derivatives of Mousterian facies.[2] He has figured some of these as well as ranges of utilized and trimmed flakes and blades comparing with specimens from Châtelperron.

Core-trimmings (pl. XXIV, nos. 17–18), struck from different points on cores to give new striking-platforms, indicate (*a*) the generally indifferent quality of the rock; (*b*) the economical use of material brought from a distance; and (*c*) well-developed lithic technique. These objects and the cores definitely mark a departure from the methods and needs of the exponents of earlier industries. Such forms of core, however, are heralded in Middle Acheulian, late Clactonian, and Levalloisian cultures when the call for fine flakes and blades began to assert itself. From the early Upper Palaeolithic onward, and indeed so long as fine stone flakes and blades were required, the core-forms occupying so important a place at La Grotte des Fées persist as evidence of a technique which received its real stimulus in the Châtelperron stage of culture.

Some of the cores selected for illustration as typical of this stage of Palaeolithic culture are noteworthy apart from their technical interest. Thus, the ovoid core (pl. XXIV, no. 12), of Levalloisian facies, was transformed into an efficient scraper by retouching a considerable part of its curved regular margin. Use as a hammer-stone or flaker for detaching flakes from other cores was made of the small narrow single-platform prismatic specimen (pl. XXIV, no. 13), the utilized end being much abraded. A transverse flake-scar at the lower end of the two-platform core (pl. XXIV, no. 16) indicates that after being flaked down the core was adapted to form a sort of chisel or hatchet of the type believed to have served throughout the 'reindeer period' to cut horn[1] or as a wedge for splitting bones.[2] Perhaps these implements may be included broadly in the same class as the post-Palaeolithic *tranchets*. Their precursors seem to appear in forms of the 'cleaver' which is most prominent in well-developed Middle Acheulian industry.

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[1] 'La Ferrassie . . .', in *Préhistoire*, iii (1934), pp. 36–43.

[2] *Ibid.*, p. 38.

Scrapers. It has been indicated already that the community of La Grotte des Fées was partial to accommodation-tools mostly in the form of untrimmed flakes and blades. According to their thickness, and as testify varying degrees of wear along the margins of the artifacts, these probably served as scrapers or knives (pl. XXIV, nos. 5–10). Improvement or adaptation was achieved in many examples by a slight retouching of part of an edge (e.g. pl. XXIV, no. 11). Such dressing, however, has no distinguishing character identifying it with any one culture. The trimming was merely applied in the quickest manner to answer some particular need, but in some cases the part adapted was that which was specially treated by the tool-maker in earlier cultures (pl. XXIV, nos. 3, 19–23), as, for example, in the preparation of butt-end scrapers (pl. XXIV, nos. 19 and 21, plain, and pl. XXIV, no. 22, spurred). In several cases, also, the irregularities of outline in flakes, which attracted by the convenience of their curves, received careful treatment, transforming crude pieces into efficient tools by different styles of secondary working (pl. XXIV, nos. 19–23).

The more usual scraper-forms belonging to the collection include side-scrapers and end-scrapers with a representation of compound tools. These well-defined shapes, even more than the accommodation-tools mentioned in the preceding paragraph, proclaim that more than one method of edge-dressing was practised by the Châtelperron people. This point adds considerably to the interest of the series when viewed from the angle of technology, though it makes more difficult the task of tracing the antecedents of the Châtelperron stage of Palaeolithic culture.

Considered, therefore, on the standards of Palaeolithic technology and morphology, the scrapers from La Grotte des Fées fashioned in selected flakes, and conforming as finished products with the well-known basic forms, deserve some notice. As the quality of the flint used for these tools is uniformly better than most here, it seems that the possible factor of poor rock (which might be thought to have dictated methods of dressing) can be ruled out.

Thus, in some specimens the trimming is so steep as to resemble vertical battering (pl. XXIV, no. 20), being even more abrupt than the short faceting observed in such objects as Clactonian, Acheulian, or Levalloisian butt-end and other scrapers. Examples of such tools occur at Châtelperron (pl. XXIV, nos. 19, 21, and 22, *supra*).

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[1] H. Breuil, 'Observations on the Pre-Neolithic Industries of Scotland', in *Proc. Soc. Ant. Scot.* lvi (1921–2), p. 263, and n.

[2] Cf. Mr. W. J. Lewis Abbott's finds in a kitchen-midden at Hastings. *Natural Science*, xi (July and August, 1897), p. 45, and pl. VI.

As a rule, however, the edge-retouch is flatter than any working noticed in these earlier industries (pl. XXIV, no. 23).

Some side-scrapers are so dressed that at first sight they might well be regarded as products of a degenerate Mousterian industry (pl. XXV, nos. 24–6). Several implements are delicately retouched of edge in a manner which shows that here already flourished a technique of high order with other methods of treatment. Lastly, different styles of edge-dressing appear on some compound tools, as for example pl. XXV, no. 37. This end-and-side scraper is treated at the end by fairly steep fine working of the kind found in well-developed Aurignacian products. Its lateral edge, however, has been dressed by minute retouch like a regular nibbling, broaching but the merest margin. This delicate kind of working has been noticed on very fine flakes and blades from the two early Périgordian levels at La Ferrassie.[1]

Of the three wide squat scrapers (pl. XXV, nos. 24–6) figured in Breuil's commentary,[2] one only (pl. XXV, no. 26) now remains in the Bailleau Collection. Though on the grounds of strict accuracy it is preferred to regard all these as side-scrapers,[3] it is not overlooked that Breuil remarked that with one exception (our pl. XXV, no. 24), the trio partake as much of *grattoirs* as of *racloirs*.[4] We need not discuss these niceties of language, but we bear in mind that our Honorary Fellow did not consider these objects in the same light as Mousterian side-scrapers (*racloirs*), but presumably as the simplest of tools for scraping (*grattoirs*) quickly made in flakes, convenient parts of whose margins were dressed for service. Such a view accords with what has already been said concerning the utilization of flakes which would render unnecessary the making of side-scrapers except for certain purposes.

The end-scrapers are a distinctive group, both in facies and execution (pl. XXV, nos. 27–36). One trio (pl. XXV, nos. 27–9) consists of relatively short flakes trimmed at the upper ends to wide working-edges, two (pl. XXV, nos. 27–8) being abruptly if rather coarsely retouched, the other (pl. XXV, no. 29) flatly and finely dressed. Three more implements (pl. XXV, nos. 30–2) are fashioned in narrower and longer material. The working-end of one (pl. XXV, no. 30) has been dressed to a bevelling, straight in its central part and rounded off at one corner. Another (pl. XXV, no. 31) comprising a crude thick flake, actually the longest which can be recorded from La Grotte des Fées, is more rounded at its working-end. In its lower part it is trimmed along the right side to a sort of tang. The third (pl. XXV, no. 32) having a carefully retouched rounded extremity approaches the well-known end-scraper of full Aurignacian culture. Equally typical in respect of form and workmanship are several other round-ended and very steeply dressed tools (pl. XXV, nos. 33–5), one (pl. XXV, no. 35), unfortunately, now broken. An end broken off a narrow thick flake of triangular section furnished material for a small scraper with a symmetrically rounded edge obtained by very steep retouch (pl. XXV, no. 36). This sort of secondary work is also seen in the lateral working-edge of the compound scraper (pl. XXV, no. 37), already mentioned.

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[1] D. Peyrony, *op. cit.* (1934), pp. 40–1, fig. 40, no. 8, and fig. 41, nos. 1–4.

[2] *Op. cit.* (1911), p. 31, fig. 2.

[3] John Evans, *Ancient Stone Implements* (1872), p. 272.

[4] *Op. cit.* (1911), p. 31.

The fine retouch of evolved character, which went to the treatment of several artifacts just examined, was particularly noted by the Abbé Breuil to have been applied to two blades, which he figured, from La Grotte des Fées (pl. xxv, nos. 38–9).[1] Commenting on these objects, he stressed their resemblance to some of the well-retouched blades from a number of important Aurignacian sites in the Dordogne and Corrèze *départements*. Only one of the specimens (pl. xxv, no. 38) has been traced. It is now reduced to a fragment. Fortunately its upper end remains to testify to the delicate workmanship.

A very similar variety of implements is represented among the prolific Périgordian groups of La Ferrassie, the lower (I, from layer E) containing the greater number of archaic forms and more evidence of earlier modes of treatment.[2]

Rostrate scrapers from La Grotte des Fées compare closely with the shouldered scrapers from Peyrony's Aurignacian I horizon at the rock-shelter station of La Ferrassie.[3] This level, it will be remembered, has yielded typical split-based bone points, a fact of importance as this characteristic form marking the Early Aurignacian has been recorded from La Grotte des Fées.[4] The stone artifacts to which attention is now drawn, like those from La Ferrassie, are distinguished by their shapely ogival outlines with a more or less pronounced working-end (pl. xxv, nos. 40–1). They are finely retouched objects, although in each case the primary material consists of a thick, coarse, and heavily crusted flake. In pl. xxv, no. 41, the nose is feeble, the distinguishing feature occurring at the right side.

Gravers. As bone-working was one of the activities at Châtelperron, gravers, though not numerous, have a place in the equipment.

Breuil figured three of the four specimens identified by him in the Bailleau Collection.[5] Of these only one (pl. xxv, no. 44) can now be found, but others have been recognized. Several examples, which bring up the total, are worth illustrating as they are associated with so early a phase of Palaeolithic bone-working. But, compared with the fine tools generally figured, the Châtelperron specimens are inferior objects. Yet their manufacturers cannot be charged with indifferent workmanship. On the contrary, they made very good use of the material, much of which must have proved unresponsive to the peculiarities of graver-production. The Châtelperron forms are elementary but noteworthy for their number of variants.

First, we have the simple or 'ordinary' (*bec-de-flûte*) types with one or more facets on the one side at the top backed against (*a*) one or more similar facets (pl. xxv, no. 42), or (*b*) a convenient edge on the opposite side (pl. xxv, no. 43). A well-made specimen (pl. xxv, no. 44) with elongated working-end and slightly depressed on the right-hand side, though showing no signs of intentional hollowing, would remind the Abbé Breuil of the *burin busqué*.[6] Slight retouching of the edge near the fortuitous and feeble indentation improved it for the application of finger-pressure.

Of the crude angle-gravers, pl. xxv, nos. 45–7 are single, no. 45 being made in a core-trimming flake. The example (pl. xxv, no. 48) with a narrow chisel-edge at each end is suggestively ancestral to the Upper Aurignacian *burin de Noailles*.

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[1] *Op. cit.* (1911), pp. 36–7, and fig. 6, nos. 42–3.

[2] D. Peyrony, *op. cit.* (1934), p. 38.

[3] *Ibid.*, pp. 43–52, and fig. 43, nos. 6, 10, and 11.

[4] H. Breuil, *op. cit.* (1911), p. 37, and fig. 7, no. 8; also *infra*, p. 112.

[5] *Ibid.*, pp. 35–6, and fig. 6, nos. 39–41.

[6] *Ibid.*, p. 36, and fig. 6, no. 41.

The idea of the backed blade, so well expressed in the classic product of Châtelperron, appears in a small graver (pl. xxv, no. 49), which at first sight might be taken for a perforator. It is delicately faceted on the left side near the tip to give a narrow-chisel-like edge by its intersection with the dressing opposite. This specimen, though not worked wholly along an edge, compares with a graver, actually an adaptation of a backed blade of Châtelperron type, from the Lower Aurignacian layer at La Roche-aux-Loups (Yonne), and considered by Breuil in his study of the evolution of the angle-graver.[1] Pl. xxv, no. 50, is a typical spall detached from a graver in the making.

It will be seen that most gravers from Châtelperron are not highly developed, though basic forms seem established here as they are in other industries assigned to this earliest stage of Upper Palaeolithic culture.[2] This fact appears even in the poor flakes and pieces of which advantage was taken. As tools these are technologically more advanced than the simple objects found at the Abri Audi, or in layers yielding comparable products at other sites. These have prototypes in France, however, not only at the Abri Audi but in many late Mousterian contexts.[3]

In a general way the gravers of La Grotte des Fées are typologically similar to those recorded by Peyrony from his early Périgordian (I) level at La Ferrassie.[4] The excellent grade of flint used there, however, would at least partly explain the greater variety and better execution of gravers at the Vézère valley rock-shelter.

Steep-backed flake-tools. Because of their distinctive facies the steeply dressed knives (fig. 2, nos. 1–16) are certainly the most outstanding group of artifacts from La Grotte des Fées. They are, moreover, the most numerously represented of all the tools belonging to any one category. So often have these classic knives or points been mentioned that it may seem unnecessary to describe their main characteristics. Still, the implements, type-forms though they be, admit of variants.

As viewed normally (the bulbar end lower), the commonest form consists of a fairly thick blade blunted by battering along the right edge and curving towards the tip to its intersection with the opposite and straight long edge (fig. 2, nos. 1–3). As the signs of wear on most of our specimens would indicate, this must have served as a cutting-edge, while the back achieved by the steep dressing permitted the user to apply considerable finger-pressure.

Besides the variants whose left edge was treated (fig. 2, nos. 4–5), it has been noticed that in a few, e.g. fig. 2, nos. 7 and 8, the bulbar end was shaped to a point. This must, therefore, be regarded as the upper end in the finished product. Such preparation of the implement was doubtless dictated by the way in which the selected primary flake or blade presented itself. It must not be overlooked, however, that as these abnormal specimens are usually more delicate than their companions the thicker bulbar end

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[1] *Op. cit.* (1912 and 1937), fig. 8, no. 1.

[2] D. Peyrony, *op. cit.* (1930), p. 37, and fig. 16, nos. 2 and 3.

[3] E.g. at Tabaterie, La Gonterie (Dordogne): A. Darpeix, 'Quelques observations sur le Moustérien du gisement Sandougne, à Tabaterie, commune de La Gonterie (Dordogne)', in *Compte Rendu de la Onzième Session*, Congrès Préhistorique de France, Périgueux, 1934, pp. 366–72 and four figs.

[4] *Op. cit.* (1934).

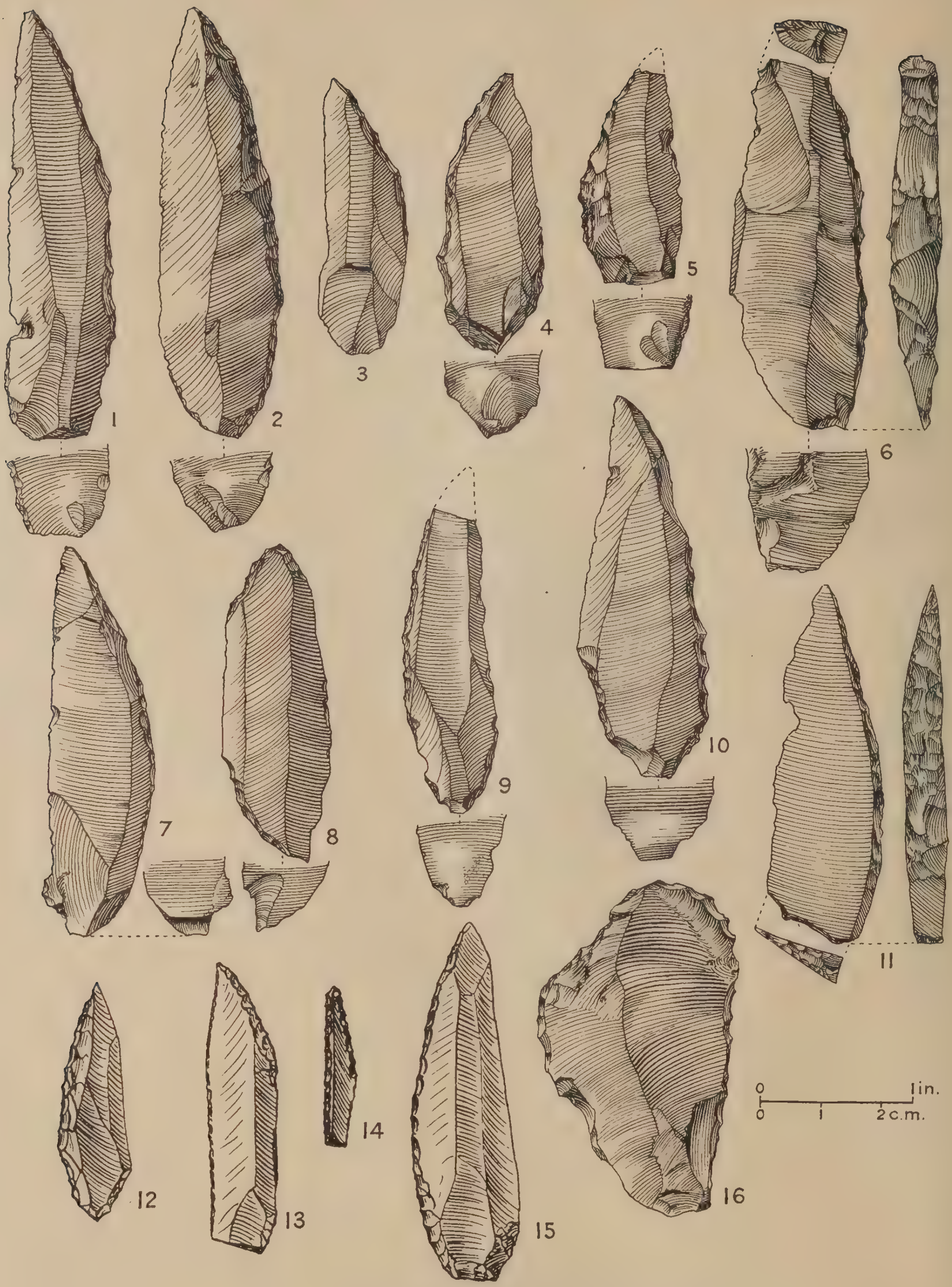
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Fig. 2. Châtelperron: Steeply dressed flint implements

would lend itself better to treatment and be more resistant under the strain of working conditions.

Although in general appearance the backed knives of La Grotte des Fées are much alike, yet the nature of their trimming is almost as diversified as in the scrapers. Thus, the ridged thick flakes or blades are boldly worked, but the finer ones bear the signs of dressing varying from fairly coarse battering (almost like the typical vertical treatment expended on the thick pieces) to delicate edge retouch.

In the majority of the specimens the dressing extends the whole length of one side, but in some it is restricted to a part or parts only near the tip (fig. 2, no. 3). Others have the added feature of being trimmed along one or both sides at the ends (fig. 2, nos. 8 and 9). In a few the base is so reduced by treatment that it looks like a feeble shouldered tang (fig. 2, no. 10). Several have been retouched steeply along the straight base (fig. 2, no. 11). In one case the flake has been sliced to remove too prominent a bulb of percussion (fig. 2, no. 13). Inverse retouch was also applied to plane down salient basal margins.

Looking over the set one sees in its constituents the forerunners of microlithic forms which became common in so many prehistoric industries from the Late Aurignacian onward. These diminutive objects are assuredly foreshadowed by three specimens from Châtelperron (fig. 2, nos. 12–14). The very small flake (fig. 2, no. 14), truncated at the base and with two blunted lateral edges, one partly and the other wholly so treated, is particularly significant. Fig. 2, no. 15, combines the typical pointed knife with an end-scraper worked on the butt.

Further comments may be made on the procedure adopted in preparing the true knives *à dos abattu*, and not the edge-retouched examples. The battering was applied by dealing a succession of blows along the edge, in most cases on the bulbar face; but the steep arched back of at least two specimens (fig. 2, nos. 6 and 11) was achieved by hammering along the edge on both faces. This method marks a development in technique which finds its full expression in certain products of Upper Aurignacian industries. It is particularly apparent in such implements as the classic Gravette knife or point which evolved from our Châtelperron type-form.

A predecessor of the Châtelperron knife is the Abri Audi form, whose style of steep dressing, nevertheless, is not restricted to the shape best known because of its having been regarded as the standard of the transition between Mousterian and Upper Palaeolithic cultures in France. The workmanship expended on other objects belonging to the Abri Audi, resemblant, and contemporary industries of the Vézère valley is also evinced in a curious implement (scraper?) from La Grotte des Fées (fig. 2, no. 16). On the score of its abrupt trimming, extending all round so completely as to have wholly blunted the margins, this piece is included with the knives. The treatment of the last-mentioned recalls that of the accommodation-tools referred to in a foregoing section (pl. XXIV, no. 20, *supra*, p. 102), and it shows that one has to go farther back than industries of Abri Audi facies for the ancestors of our knives *à dos abattu*. Well-made implements from Peyrony's horizon ascribed to the Mousterian of Acheulian tradition at La Ferrassie,[1] and from the lower and upper layers referable to

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[1] *Op. cit.* (1934), p. 9, and examples in fig. 6.

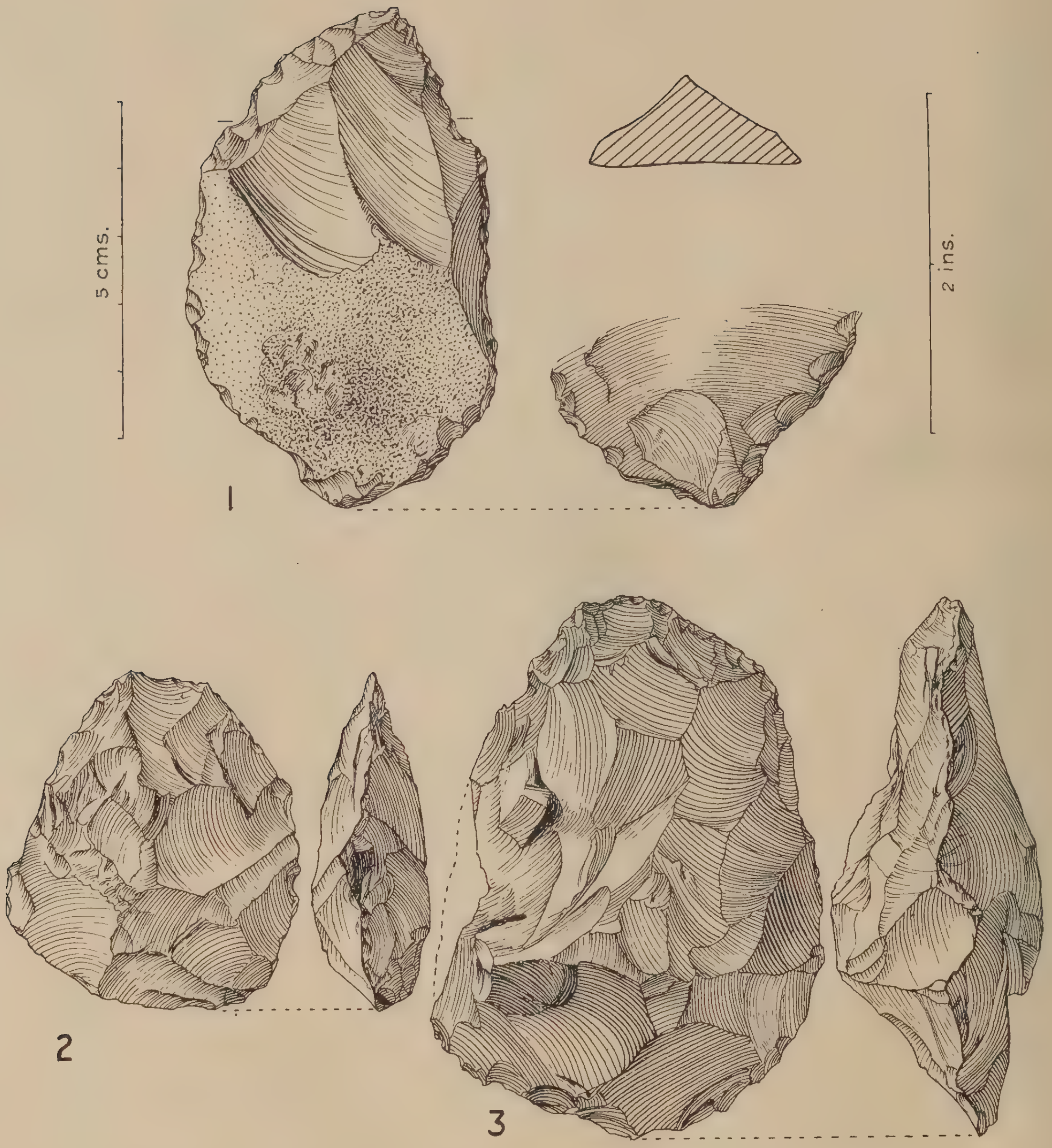

Fig. 3. No. 1, Middle Acheulian steeply dressed flint implement; Baker's Farm, Farnham Royal, Bucks. No. 2, Flint ovate; Châtelperron (Allier). No. 3, Upper Palaeolithic flint ovate; Beauregard, Nemours (Seine-et-Marne)

the same culture phase at Le Moustier,[1] testify already to the practice of steeply trimming scrapers and knives. French Pleistocene fluviatile deposits can no doubt provide even more ancient examples of abrupt dressing of flakes. Enlightening examples, however, come from home, as the writer has recovered from the gravels of the Boyn Hill Terrace in Buckinghamshire and Middlesex several Middle Acheulian flake-implements, one long side of which is steeply trimmed and curved at the top (fig. 3, no. 1).

Bifacial implements. Of the three *bifaces* in our assemblage, giving rise to some speculation, two are thick-butted and flaked in nodules. These may be dismissed by reason of their execution which would relegate them to an evolved Acheulian industry. Breuil's suggestion in respect of all three can reasonably be taken to account for the presence at La Grotte des Fées of the two it is preferred to regard as intruders.[2] He could not exclude the possibility that the implements might have been brought from Tilly, the source of the raw flint. Besides, it seemed to him that the numerous unaltered Acheulian cordiform ovates occurring at Tilly resembled those noted at Châtelperron. The present author, however, thinks that the smallest, a cordiform ovate boldly worked in a thick flake (fig. 3, no. 2), may not be placed in the same class as the two of unmistakable and superior Acheulian workmanship. Certain considerations strongly suggest that this specimen may be a product of the Châtelperron industry.

The cave-station of Germolles (Saône-et-Loire),[3] not far from Châtelperron, may be mentioned as a site which has yielded a few bifacial implements in association with an industry whose products, if sometimes more archaic in appearance than those of La Grotte des Fées, yet include precisely the same forms, not excepting the classic point or knife *à dos abattu*.[4]

The Mousterian of Acheulian tradition from Le Moustier, Peyzac (Dordogne), in a layer intercalated between the two true Mousterian levels, includes a variety of bifacial implements. These are mingled with tools of apparently more advanced type, as, for instance, Abri Audi forms,[5] and at least one point or knife of the sort to which Châtelperron[6] owes its prominence.

Approaching the Châtelperron ovate, and also referable to the Mousterian of Acheulian tradition but contemporary with the final true Mousterian of Le Moustier, are the innumerable bifacial implements of Combe-Capelle, Saint-Avit-Sénieur (Dordogne),[7] where the sequence of cultures represented ranges from Mousterian to Solutrean.[8]

For archaeological and other reasons the industry of La Grotte des Fées cannot be separated distantly in point of age from that of the Abri Audi. Here Breuil noted numerous small *bifaces*.[9] These he regarded as survivals of earlier culture into the well-represented transitional stage of the many French sites, which have yielded similar objects in series comparing even more closely with the associates of the small ovate under review.

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[1] *Op. cit.* (1930), pp. 15 and 24, and examples in figs. 6 and 11.

[2] *Op. cit.* (1911), pp. 37–40.

[3] *Ibid.*

[4] *Ibid.*, p. 37.

[5] D. Peyrony, *Éléments de Préhistoire*, Ussel, 1933, p. 57.

[6] D. Peyrony, 'Le Moustier . . .', in *Revue Anthropologique*, 1930, nos. 1–3 and 4–6 (offprint), pp. 23–4, and figs. 10–11.

[7] D. Peyrony, *op. cit.* (1933), p. 58.

[8] *The Sturge Collection* (*Foreign*), p. 25. A bibliography is given.

[9] ÉTUDES DE MORPHOLOGIE PALÉOLITHIQUE. I. La transition du Moustérien vers l'Aurignacien à l'abri Audi et au Moustier', in *Revue de l'École d'Anthropologie*, 1909, p. 320.

To these cases the author may add that his excavations at an open-air site on Le Redan, Beauregard near Nemours (Seine-et-Marne) yielded a cordiform ovate, unfortunately damaged (fig. 3, no. 3), with an abundance of other artifacts[1] similarly patinated and assignable to what is assuredly an even later Upper Palaeolithic culture-phase.

Dr. L. Capitan and M. D. Peyrony have recorded Magdalenian pyriform *coups-de-poing* from the lowest level at the type-station of La Madeleine, Tursac (Dordogne).[2] This horizon gave many objects recalling Upper Aurignacian forms and workmanship and also some implements of Mousterian facies. On the score of their patination, which is identical with that borne by the associated artifacts, these workers dismiss any objection which might be raised against an early Magdalenian ascription. Moreover, Capitan and Peyrony advance further evidence which shows unambiguously the survival of the hand-axe in Magdalenian culture, in the shape of two examples from the high level at the classic name-site.[3]

That such echoes of Lower Palaeolithic industry in the form of *bifaces* should survive in the initial stages of the Upper Palaeolithic is, therefore, not surprising. The need for, and production of, bifacial implements never really ceased and, although the shapes and execution were modified, post-Palaeolithic instances closely resembling the ancient forms are not uncommon.

BONE-WORK

General observations. Several reasons seem to contribute to the neglecting of the possibilities afforded for research by humanly fractured animal bones from prehistoric sites. No doubt, as with stone implements, the predilection for collecting finely executed artifacts (such as those upon which standards of typology have been founded) has done much to obscure humble objects.

Such things as the slightly pitted Mousterian bone 'anvils' have long been familiar. Also, increased knowledge of prehistoric flint-working methods has satisfactorily explained numbers of obviously prepared and some much worn rudimentary bone tools as accessories used in the manufacture of stone implements by pressure and otherwise. That much progress has been made of late in this direction is due in no small measure to the experiments of M. Léon Coutier, of Noisy-le-Sec (Seine).

Large Upper Palaeolithic collections, assembled by prehistorians careful enough to glean every bone and stone object appearing to bear the signs of human work, show that in representative contexts the bone equipment comprises the same classes as an ordinary one of stone.[4] These are (*a*) accommodation-tools; (*b*) normal range of implements; and (*c*) exceptionally well-executed pieces. At sites where the rock used

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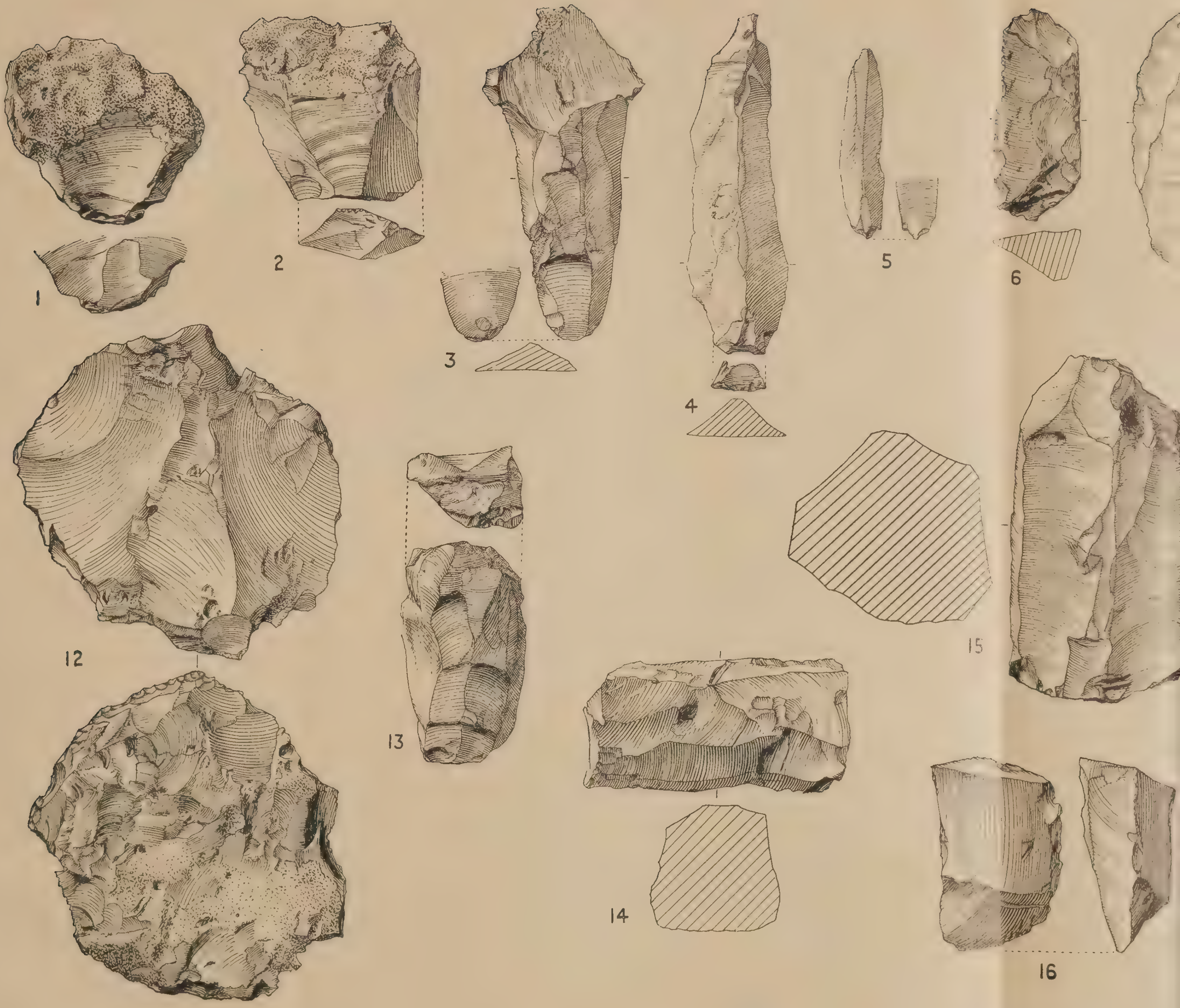
[1] A. D. Lacaille, 'Contribution à l'étude du Paléolithique Supérieur du Gâtinais', in *Bulletin de la Société Préhistorique Française*, xxix (1932), pp. 272–3, and fig. 1.

[2] 'La Madeleine . . .', *Publications de l'Institut International d'Anthropologie*, no. 2 (Paris, 1928), pp. 27–9, and fig. 12, nos. 2 and 3.

[3] *Ibid.*, pp. 82, 85–6; and fig. 46, nos. 1–2.

[4] Baron Louis Bégouen and Commandant E. Octobon brought up the subject at the Prehistoric Congress at Périgueux in September 1934. 'Outillage en os du Paléolithique Supérieur', in *Compte Rendu de la Onzième Session*, Congrès Préhistorique de France, Périgueux, 1934, pp. 186–8. In a footnote (p. 186) these authors name a few prehistorians whose records of bones utilized and prepared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Châtelperron flint industry: Nos. 1–11, flakes and blades; Nos. 12

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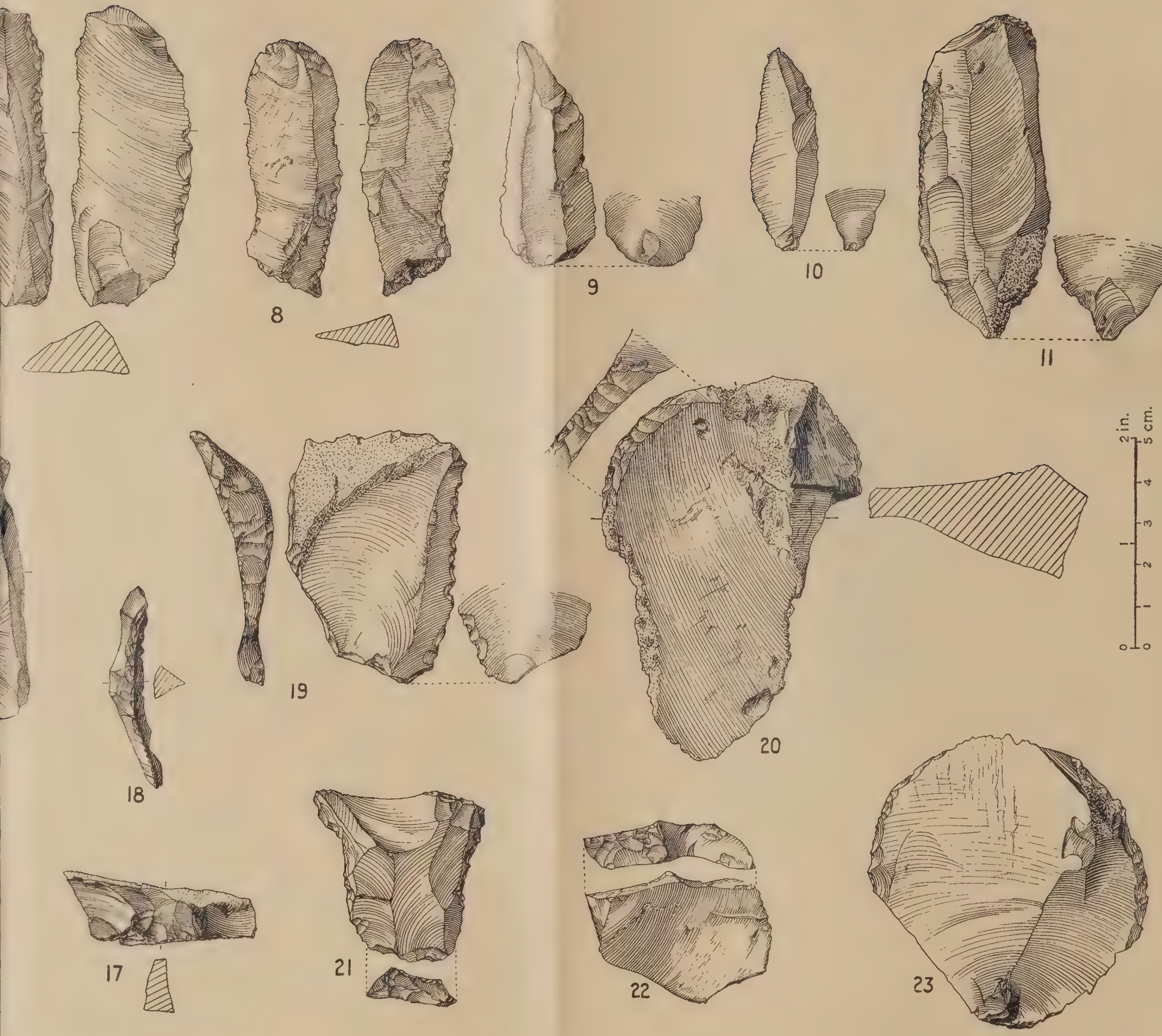
PLATE XXIV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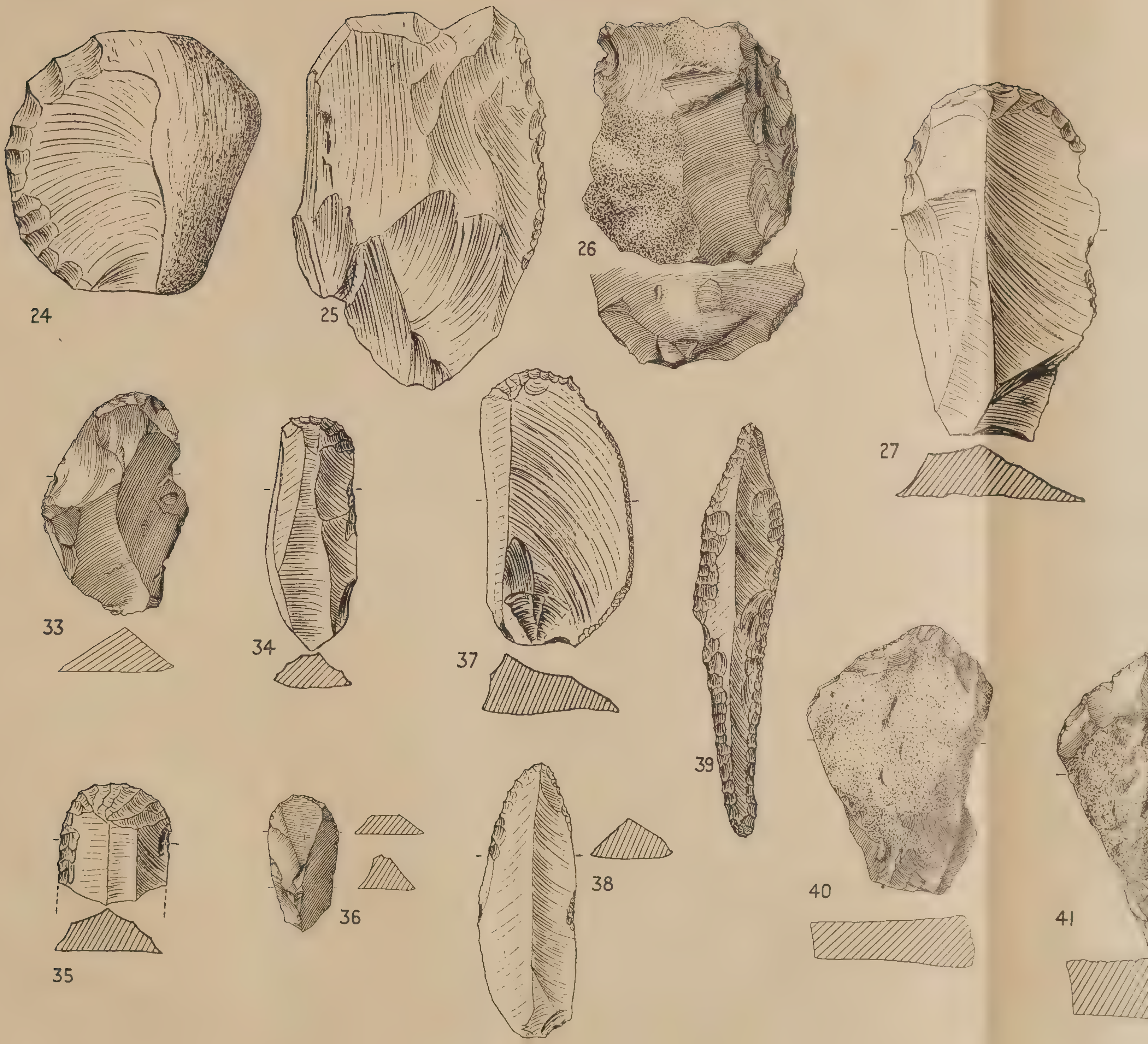
16, cores; Nos. 17–18, core-trimmings; Nos. 19–23, scrapers

quaries of London, 1947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Châtelperron flint industry; Nos. 24–37, 40–1, scrapers; Nos. 38–9, edge

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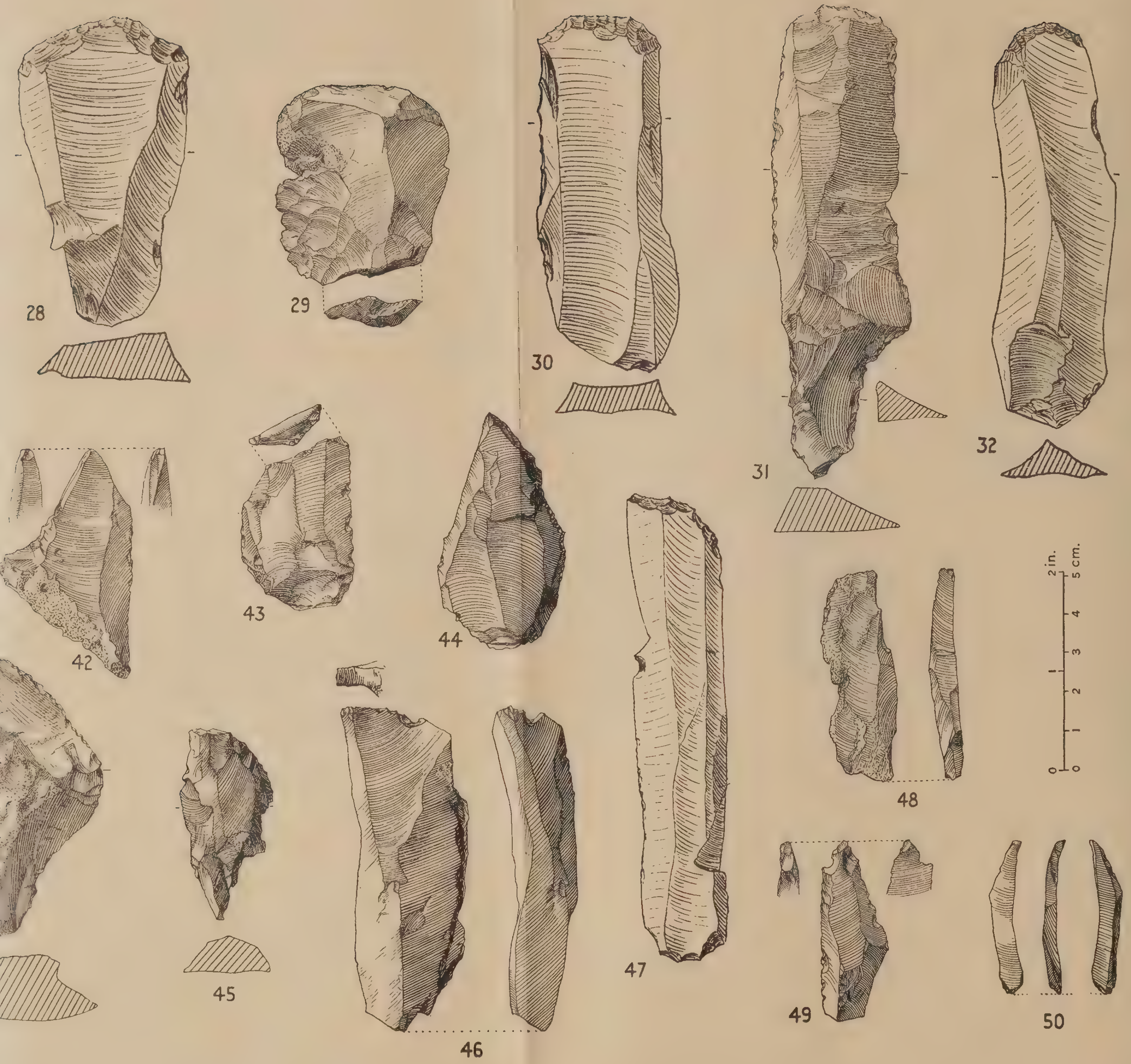
Plate XXV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retouched flakes; Nos. 42–9, gravers; No. 50, graver-spall

uaries of London, 1947.

for the manufacture of stone tools was poor or scarce, it would seem that bone, because it helped to eke out deficiencies, was used more extensively for workaday tools than at stations better favoured in the matter of tractable rock. Hence, the few authors who have recently reported on rudimentary Upper Palaeolithic bone implements have generally dealt with cave and rock-shelter deposits in mountainous districts remote from a source of good siliceous rock.

One merit of bone for common tools was easy replacement, and another that its treatment presented little difficulty. In the manufacture of these simple implements a hammer-stone and anvil sufficed (*a*) to split the bone and to dress the margin of the fracture to a working edge, or (*b*) to detach splinters. Many of the latter doubtless served just as they were, but others found to be particularly handy were subjected to some edge-dressing. So far as scrutiny permits one to say, the rudimentary treatment of bone was not different from elementary flaking of stone. For more elaborate and higher grades of bone-working an immense assortment of stone edge-tools was devised; but, although the necessary gear was of the simplest, the practice of smoothing down bone objects on stone in Upper Palaeolithic industries marks a great step forward in the march of industrial progress.

The use of bone at La Grotte des Fées. Now, the Châtelperron cave-dwellers, having no flint supply in their immediate neighbourhood, were forced to collect rock for the manufacture of implements. That they supplemented this importation appears from the rude tools they fashioned in osseous substances; but in their stage of culture they also produced well-made stone artifacts which, though few have been recovered, can be ranked with those figuring in the text-books. Thus, Bailleau's finds may be said to include examples belonging to all the categories mentioned. It is feared, however, that much which would have been helpful in the furthering of this specialized line of research is now missing from the Châtelperron collection. Credit is due to Bailleau for having detected crude bone tools besides a few well-made bone objects, some perforated bones and teeth. Before him, however, Poirier had collected well-defined artifacts of bone including those whose records are valuable cultural indicators establishing the place of the Châtelperron industry in the Palaeolithic sequence. The most significant specimens are known to have gone to America; and, unfortunately, several of the best discovered and figured by Bailleau, and later by Breuil, cannot be traced. Nevertheless, though most of the series consists of typical objects, the assemblage affords scope for deeper study. The following necessarily restricted remarks will, it is hoped, stimulate inquiry in a virtually untouched field of research, namely that afforded by innumerable broken bones, as distinct from shapely products, recovered by excavations and the examination of deposits and prehistoric floors.

for employment as tools seem to have been passed over.

Commandant Octobon returned to the question two years later. His masterly communication 'Outillage paléolithique banal en os' (by a printer's error entitled 'néolithique' in the *Compte Rendu*) treats the matter fully from the angles of typology and technology. *Compte Rendu de la Douzieme Session*, Congrès Préhistorique de France, Toulouse and Foix, 1936, pp. 303–30.

On the same occasion Count Bégouen and Baron Bégouen contributed very useful observations on Magdalenian rude tools of bone from Pyrenean sites, flaked in the same way as flints. 'Quelques esquilles d'os, du Magdalénien, travaillés comme des silex', in *ibid.*, pp. 685–8. How rarely authoritative opinions have been voiced in this connexion since 1907 appears from the fact that they could cite only seven papers (pp. 685–6).

Breuil commented on the poverty of the bone equipment from La Grotte des Fées.[1] However, having regard to a recent article of his,[2] to the extant references to elementary bone-tools and to the rare contributions which have appeared on the less spectacular products of Palaeolithic and other bone-work, it is only now that further observations can be made on this side of industrial activity at Châtelperron. In the present state of knowledge little can be said on the technological aspects of bone-working. Researches, moreover, are not sufficiently advanced to permit one to express convincing views on typology. Attention, however, is drawn to a number of features of interest.

Split-based point. Because of its implications, by far the most important bone artifact from Châtelperron is a point with cleft base (fig. 4, no. 1)[3] precisely matching the classic form from Aurignac (Haute-Garonne). Investigations carried out in recent years, in particular Peyrony's admirable work at La Ferrassie,[4] indicate that this bone form, whether split or plain at the base, rather than the stone backed knives of Châtelperron, is the type-fossil of Lower Aurignacian culture. The knives *à dos abattu* of Châtelperron facies, which occur in a level underlying that yielding split-based bone points at La Ferrassie and elsewhere would, according to Peyrony, belong to another system, the Périgordian, wherein the steep-backed knife is the decisive element.[5]

Awls. Other examples from La Grotte des Fées, which can be paralleled elsewhere in a Lower Aurignacian horizon, consist of simple thick-headed awls or pins. One made in a metacarpus of horse has the added feature of ornamentation in the form of four lines faintly incised on the shank below the head. Such as it is, it affords the only evidence of decorative work from Châtelperron. This specimen (fig. 4, no. 2), whose point seems to have been broken anciently, was, like the foregoing, figured by Breuil from a cast.[6] It ranks with a kindred but plain implement (fig. 4, no. 3).[7] Bailleau's sketch,[8] here reproduced (fig. 4, no. 4), represents the working-end of another awl, carefully executed, apparently by whetting on stone.

Points. A small pointed piece of bone which was broken off as a triangular fragment from the parent is carefully trimmed along the edge of the fracture at the base (fig. 4, no. 5). The specimen must, therefore, be regarded as a true, dressed implement, which—though perhaps fortuitously—resembles its companion flint backed knives. Its treatment, though more delicate, is in principle similar to that expended on the coarse tools considered below. Suffice it to say here that the signs of working which it exhibits are not unlike those borne by the batter-trimmed flints. The rounding-off of the basal edge was achieved by striking along the margin of the internal surface of the bone.

On its typology we should not be surprised to find the now defective curved ivory point (fig. 4, no. 6) in an Aurignacian III context. But from what has been said by different authors on the Châtelperron stage of culture, this example testifies further to well-developed craftsmanship at La Grotte des Fées. When whole, this object could doubtless rank as the offensive part for attaching to the shaft of a weapon. The specimen is semicircular in section, the striae on its surface testifying to the forming of the rounded obverse by gravers and scrapers. The reverse, flat and quite smooth, was certainly ground on stone. A weapon-point, now broken (fig. 4, no. 7), is doubtless also represented in a well-worked piece of ivory.

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[1] *Op. cit.* (1911), p. 37.

[2] 'The Use of Bone Implements in the Old Palaeolithic', in *Antiquity*, 1938, pp. 56–67.

[3] H. Breuil, *op. cit.* (1911), p. 37, and fig. 7, no. 8.

[4] *Op. cit.* (1934).

[5] 'Les industries "aurignaciennes" dans le bassin de la Vézère', in *Bulletin de la Société Préhistorique Française*, xxvii (1930), pp. 543–59. M. Peyrony's argument is summed up by Professor D. A. E. Garrod, F.S.A., in her 'The Upper Palaeolithic in the Light of Recent Discovery', in *Proc. Prehist. Soc.*, N.S., vol. iv, pt. i (1938), p. 4.

[6] *Op. cit.* (1911), p. 37, and fig. 7, no. 6.

[7] Bailleau, *op. cit.* (1872), p. 29, and pl. I, no. 6.

[8] *Ibid.*, p. 29, and pl. I, no. 5.

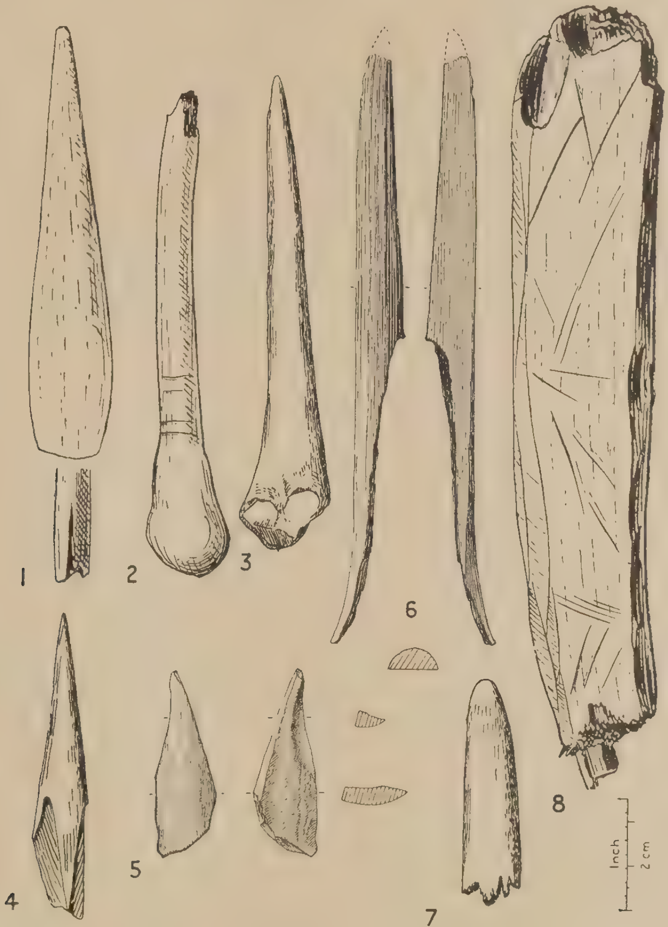

FIG. 4. Châtelperron: Bone implements

Accommodation-tools. The only bone relics comparing with the so-called anvils of Mousterian contexts which can be recorded from Châtelperron are a few plaques of ivory and bone profusely and irregularly striated. They may have served to support flints under treatment. Having no really decisive varieties before him, the writer cannot, of course, venture any opinion regarding those pieces advanced by Bailleau, although the drawing of an unambiguous specimen noted by Breuil may be reproduced (fig. 4, no. 8).[1]

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[1] *Op. cit.* (1911), p. 37, and fig. 7, no. 1.

Some pieces of mammoth bone and ivory, hacked across preparatively to fracturing, crudely worked by flaking and much worn along the broken edge, were noticed by Breuil,[1] who was not convinced that all the specimens illustrated by Bailleau in 1872 showed real signs of use.[2] Nevertheless, some unambiguous, rude tools may be mentioned. Although their present decayed and fragmentary condition does not allow one to visualize them as finished products of once massive proportions, yet the traces of treatment and wear which they exhibit would justify a note devoted to them. Whether or not the bony remains of the mammoth are more perishable than those of the contemporary fauna, most of the remains of this great beast from La Grotte des Fées are badly preserved and friable. The huge limb-bones, in which the tools of this class have been improvised by rough fashioning, are fractured in their length exposing the cancellated structure. The external surface usually bears many striations pointing to its having been assiduously scraped by stone implements to remove adhering fleshy tissue. The transverse edge obtained by breaking the bone across and improved by elementary dressing for working is generally worn dull, possibly by long use in scraping hides or digging into soft earth.

More remarkable are some lighter and well-preserved tools made from the pelvic and limb-bones of other animals. Admirably fitting the grasp, all are well-balanced, powerful, and easily manipulated. As with the foregoing, their fractured ends were used.

One (pl. XXVI *b*, no. 1) is an implement with two working-ends made by fracturing a haunch-bone (left side of pelvis) of horse, the body of the ischium serving as the grip. The ends, though not secondarily treated, were long used, as testify smooth areas around the edges. Another (pl. XXVI *b*, no. 2) but heavier implement is seen also to have been ingeniously fashioned by breaking off, after hacking and sawing, the pubes and ilium,[3] part of the latter being retained and dressed to a narrow working-end. The sides of the large socket (acetabulum) are wide enough apart to permit an operator to grip the tool with two hands, and thus apply considerable pressure. That the object was so used appears from the wear evident behind the end which also exhibits a flake-scar, doubtless a vestige of treatment. A resemblant but much better defined implement is represented in pl. XXVI *b*, no. 3, manufactured in the diaphysis of a metatarsus of aurochs. A glance at the figure is sufficient to show the character of the working-end of this tool and how skilfully it is made. Though perhaps not to be grouped with the three specimens just described, on account of the signs of utilization it bears, the distal end of a right radius of aurochs may be shown as a tool prepared in the same way (pl. XXVI *b*, no. 4). It exhibits no real traces of wear at the jagged extremity but is glazed by continuous use along the external margin of the long, fractured edge.

A worked and utilized mandible. A striking feature of Upper Palaeolithic contexts is the occurrence in them of numbers of fragments of animal jaws. The best-known examples are those of reindeer with several teeth left *in situ*, and what appear to be implements consisting of pieces of mandibles, usually of bear, retaining a canine tooth. Among the bones in the Châtelperron collection are several examples of the former, showing that the practice of breaking animal jaw-bones was in vogue here and that these reindeer remains received attention. One specimen (pl. XXVI *a*), however, calls for particular mention as an instrument falling into the latter order. It consists of the right mandible of a giant deer severed from its fellow. In places, mostly on the outer surface, the diaphysis forward of the six teeth bears shallow and fairly equally placed scorings. These are probably the marks of a hyena's teeth perhaps improved by man, who took advantage of the excellent self-handle these cuts afforded between the knobby extremity and the first tooth to make an implement. As such, its purpose can only be conjectured. It might have been used for striking or digging, or the ramus itself with the firmly set teeth could have served as the working part. That it was specially prepared appears from the posterior part which was carefully fractured and dressed somewhat obliquely from the angle. This operation removed the condyle process but left part of the coronoid. The extremity of this was worked to a point, now slightly impaired but not sufficiently to obliterate the signs of trimming.[1]

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[1] *Op. cit.* (1911), p. 37, and fig. 7, nos. 1 and 9.

[2] *Ibid.*, p. 37 n.

[3] Dr. Stephen and Professor Janikowski consider that this belongs to one of the cervidae, probably Giant Deer, the so-called Irish Elk. Dr. A. C. Stephen, *in litt.*, Edinburgh, 1st July 1941.

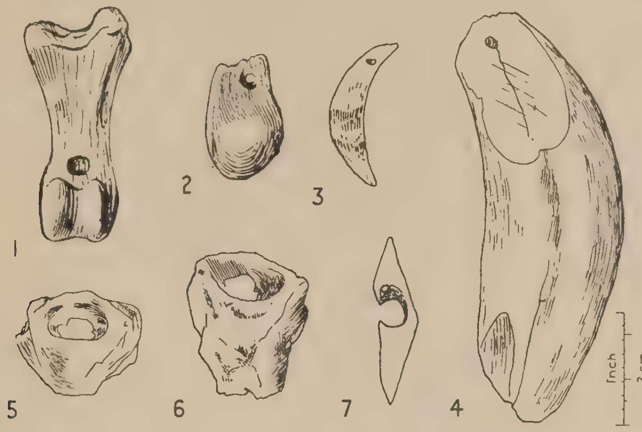

FIG. 5. Châtelperron: Bone ornaments

Holed phalanges. Like other sites yielding a comparable industry, and indeed similarly to most Upper Palaeolithic stations, Châtelperron rewarded its investigators with several holed phalanges of horse and aurochs.[2] Such objects are generally thought to be whistles. The specimens found by Bailleau differ from the normal type in that the single hole, instead of being drilled in the centre of the body, occurs in the lower part (fig. 5, no. 1).

Ornaments. The collection now wants the perforated teeth recorded in earlier accounts, but the specimens already noticed must be mentioned as complementary to the industrial output. They are important, too, as expressions of a folk living in a stage of culture sufficiently advanced to have had the idea of decking their bodies.

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[1] The various methods of converting the jaw-bones of beavers into tools described by A. de Mortillet involve examples treated in much the same way as the subject of the paragraph above. 'Emploi des dents de Castor aux temps néolithiques', in *Revue Anthropologique*, xxvi (1916), pp. 409–18.

[2] Bailleau, *op. cit.* (1872), pp. 30–1, and pl. I, nos. 22–3.

Besides, these relics proclaim the use of special tools for fine drilling such as was unknown in earlier cultures. Canine teeth of reindeer, fox, and cave bear from the groups represented in the original series are figured respectively as fig. 5, nos. 2–4.

Bailleau distinguished polished bovid and horse ear-bones (fig. 5, no. 5)[1] from those in their natural state (fig. 5, no. 6),[2] considering the former to have been prepared pendants. We prefer to see a broken ornament in the small incompletely perforated and polished bone (fig. 5, no. 7) rather than a fish-hook as suggested by the finder.[3]

Bone, however, was not the only substance used for trinkets, as in 1924 a perforated shell was found with a few stone implements and a deeply cut bone of bison on the floor of one of the Châtelperron caves.[4]

Pigments. Manganese and bright red clay broken into walnut-sized lumps point to the use of colouring materials at La Grotte des Fées.

CONCLUSIONS

The cultural facies represented at Châtelperron (Allier) marks a distinct advance on its forerunners, notably the industries of Abri Audi horizons in the valley of the Vézère, Dordogne. While the forms which have made Châtelperron classic do denote a further stage in the evolution of the steep-backed knife, the industry includes types current at the Abri Audi, and others made in even earlier tradition.

On the one hand, the stone products of La Grotte des Fées suggest apposite grouping with Peyrony's early Périgordian. On the other hand, if certain bone objects, such as split-base points, awls, and weapon-heads, are the real indicators of early Aurignacian culture, then the Châtelperron assemblage, which includes typical elements of both, must be regarded as hybrid.

The mixed character of the industry is emphasized by the signs of different techniques adopted in stone-working. Thus, some of the methods prevailing in earlier Palaeolithic cultures were followed. This is testified to by numerous wide and thick flakes and flake-implements. That new ideas had gained a firm hold appears in the strong element of pre-determined implement-forms fashioned in blades.

The diversity of gravers already apparent accords with the fairly varied and practical, but not elaborate, bone-work. If, however, there were any relics showing what process was adopted in the primary shaping of the finer bone objects, the status of the industry could be more accurately estimated.

It is evident also that the Châtelperron industry belongs to a stage introducing several categories of stone and bone implements which developed throughout the succeeding Upper Palaeolithic divisions. Basic forms such as occur at La Grotte des Fées survived in the equipment of prehistoric man so long as he continued to use these materials for the manufacture of his implements.

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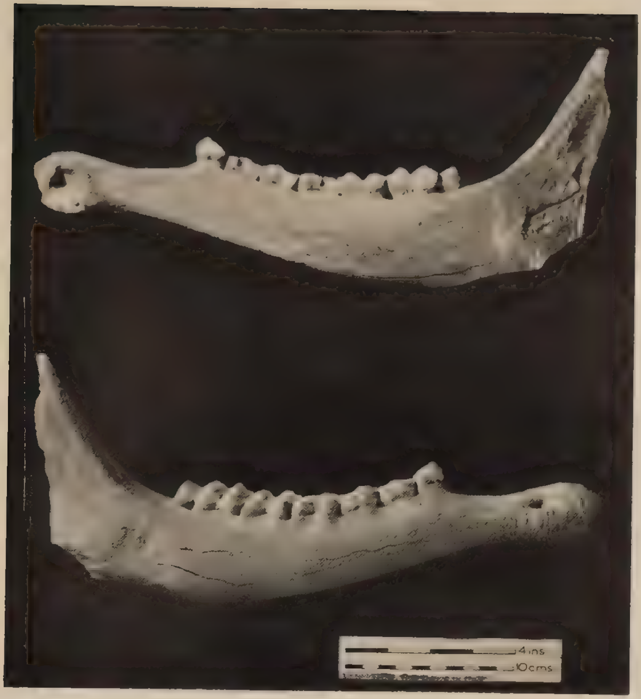
[1] *Op. cit.* (1872), p. 30, and pl. 1, nos. 22 and 23.

[2] *Ibid.*, and pl. 1, no. 16.

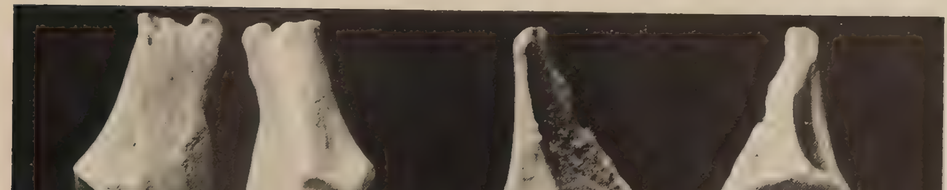
[3] *Ibid.*, and pl. 1, no. 21.

[4] E. M. Buisson, 'La Grotte des Fées à Châtelperron', in *Compte Rendu de la Onzième Session*, Congrès Préhistorique de France, Périgueux, 1934, pp. 184–5. This paper was an appeal by M. Buisson and the Marquis Henri de Pardieu (*ibid.*, p. 185) for action to be taken against the present proprietor's refusal to allow a new excavation to be made at the classic cave-station. M. Buisson referred to the unpublished notes of Dr. Bailleau in the keeping of M. Sadougny, Moulins.

PLATE XXVI



a. Châtelperron: bone implements


4 ins
10 cms
2
3
4

b. Châtelperron: bone implements

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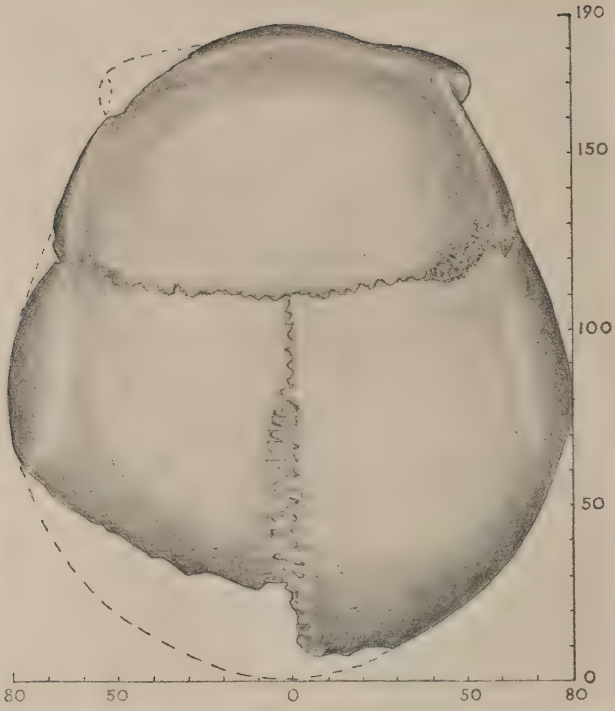
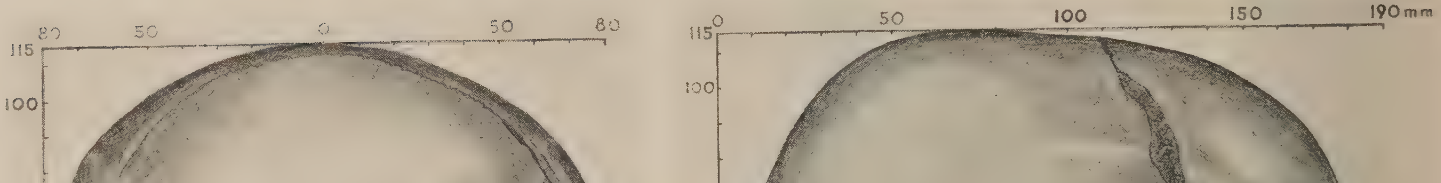
PLATE XXVII


190
150
100
50
0
80
50
0
50
80

Châtelperron calvaria, with restored outline of skull.
Norma verticalis


80
50
0
50
80
115
100
50
0
50
100
0
50
100
150
190 mm
115
100
50
0
50
100

Châtelperron calvaria, with restored outline of skull. Norma frontalis, norma lateralis

Published by the Society of Antiquaries of London, 1947

The mixed character of the assemblage raises the question of migrations without involving that of Aurignacian origins which have been considered recently by our Fellow, Professor D. A. E. Garrod.[1] Human movements directly to or from south-western France over the central upland masses can hardly be envisaged, especially as it cannot be doubted that these high grounds must still have been impassable. But one can well imagine contacts between communities in the river valleys, by which migrating bands could penetrate farther into the country and settle in favoured spots. There is evidence enough from the Pleistocene deposits of the Somme, Seine, Loire, and other valleys to show that early Upper Palaeolithic industries succeeded, and adopted many features of, Late Levalloisian and essentially riparian culture.

ACKNOWLEDGEMENTS

The writer wishes to record his sense of indebtedness to M. l'Abbé G.-H. Pépin, Neuvy-lès-Moulins (Allier) for help so kindly given. His knowledge of the Châtel valley and regional prehistory, his first-hand acquaintance with Dr. Bailleau's work, and the freedom with which he furnished information suggested the possibility of making this review. That this has been realized in the communication laid before the Society is due to the facilities generously granted the author by the Wellcome Historical Medical Museum, London, to continue the study of the collection. To this institution, and its director, Dr. S. H. Daukes,[2] therefore, warm gratitude is expressed.

APPENDIX

Report on a Human Calvaria of Upper Palaeolithic Type

By Professor A. J. E. CAVE, M.D., D.SC.
(*Royal College of Surgeons of England*)

Provenance. The specimen, the property of the Wellcome Historical Medical Museum, was acquired by that institution as part of a prehistoric series from the classic Early Aurignacian site of La Grotte des Fées, Châtelperron (Allier). The series included Upper Palaeolithic artifacts and the calvaria is presumably from the same Aurignacian deposit.

Anatomy. The specimen consists of an incomplete skull-cap, comprising the entire right parietal, the incomplete left parietal, and the imperfect frontal bones of a middle-aged, probably male, adult individual. It manifests no trace of ante-mortem injury or disease. Brachycephaly and platycephaly are pronounced and obtrusive features. In colour the specimen presents a greyish-pink background, fairly heavily and uniformly mottled with brown and blackish-brown. It is distinctly heavy from mineralization, which is apparent upon inspection of the diploic trabeculae and interstices at its various margins. Its thickness is striking, being of the order of 6 to.10 mm. in the median frontal region, of 7·5 mm. at the right parietal eminence, and of some 11 mm. at the thickest parts of the two parietals. The colour, thickness, texture, and degree of mineralization of the specimen are consistent with—indeed, suggestive of—a considerable antiquity.

The coronal and sagittal sutures are closed but unobliterated and both are discernible endocranially: their condition suggests the death of this individual somewhere within the fourth decade of life. There is asymmetry of the frontal air sinuses. The left sinus, moderately capacious, is exposed inferiorly, and is freely explorable: the feebly developed right sinus is inaccessible from below, partly, but not entirely, because of the mineralization present. Endocranially a meningeal vascular pattern of normal configuration is clearly apparent, and behind the coronal suture the cranial vault is indented, on each side of the sagittal suture, by a number of Pacchionian impressions.

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[1] *Op. cit.* (1938).

[2] Director until his retirement at the end of 1945.

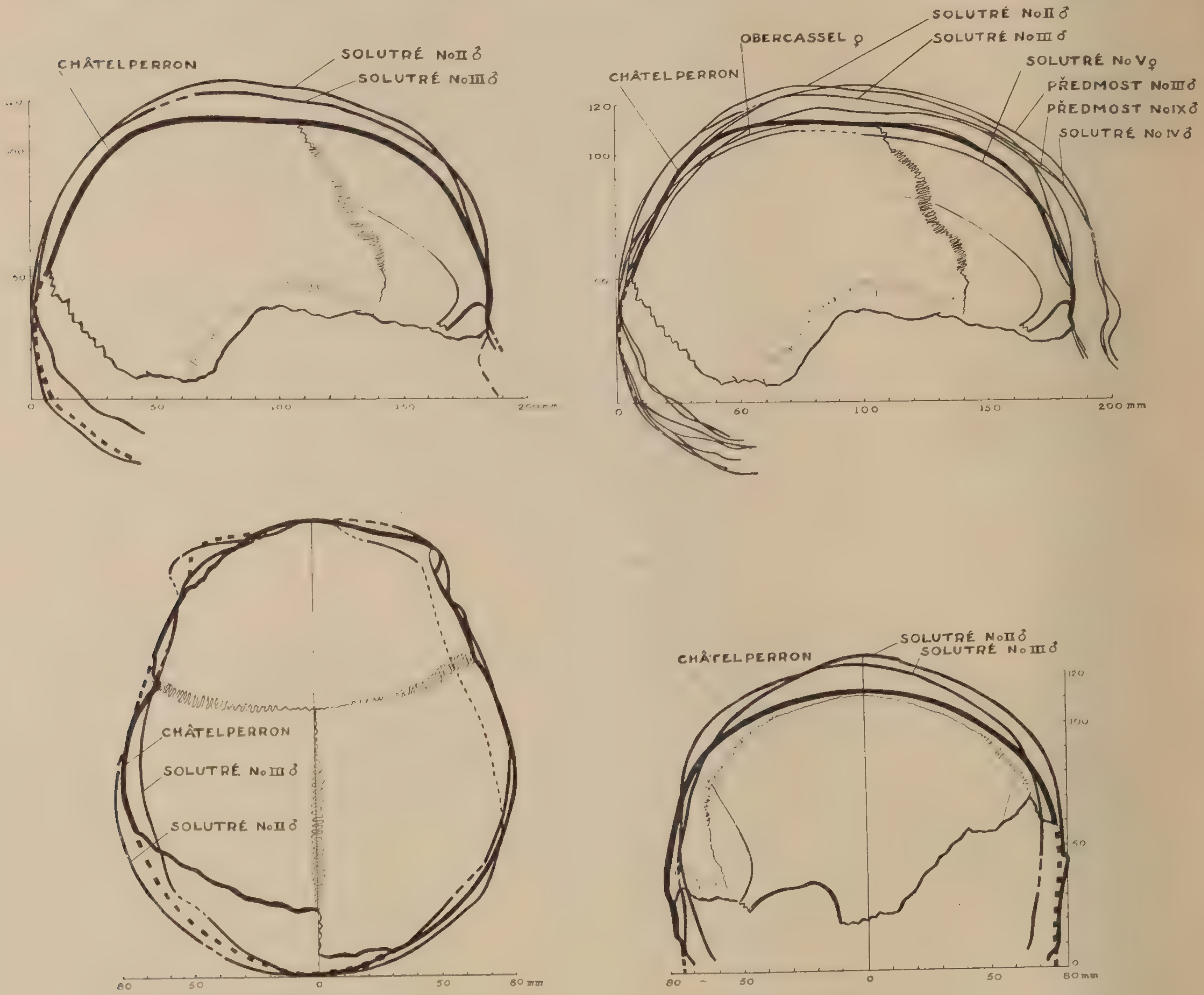

CHÂTELPERRON
SOLUTRÉ No II ♂
SOLUTRÉ No III ♂
50
0
50
100
150
200 mm
SOLUTRÉ No II ♂
OBERCASSEL ♀
SOLUTRÉ No III ♂
SOLUTRÉ No V ♀
CHÂTELPERRON
PŘEDMOST No III ♂
PŘEDMOST No IX ♂
SOLUTRÉ No IV ♂
120
100
0
60
100
150
200 mm
CHÂTELPERRON
SOLUTRÉ No III ♂
SOLUTRÉ No II ♂
80
50
0
50
80 mm
SOLUTRÉ No II ♂
SOLUTRÉ No III ♂
CHÂTELPERRON
120
100
50
0
80
50
0
50
80 mm

Fig. 6. Comparative outlines of Châtelperron and Upper Palaeolithic crania

The morphological characters of the specimen are best appreciated from the accompanying dioptographic drawings (pl. xxvii) representing the calvaria oriented in the Frankfurt plane and viewed from lateral, frontal, and vertical aspects. The brow is broad, low, and but moderately vertical, with distinct though unobtrusive frontal eminences and with well-developed supraciliary eminences confluent at the glabella. The merest trace remains of the osseous nose:

sufficient however to establish that the nasal skeleton was prominent, and was raised, not sunken, at its root. The (right) superior orbital margin is sharp and gracile, and terminates laterally in a strongly developed external angular process. The cranial vault, both platy- and brachycephalic, rises but some 114 mm. above the Frankfurt plane: it manifests a marked flatness of contour in the bregmatic region and an area of extreme flattening in the postero-inferior parietal region (behind and below the parietal eminences) where its maximum transverse width obtains.

Osteometry. The following approximate osteometrical data were obtained from direct cranial mensuration or estimated from dioptographic tracings of the specimen, oriented in the Frankfurt and subcerebral planes:

Maximum length	186 mm.
Biparietal breadth (below parietal eminences)	158 mm.
Minimal frontal diameter	105 mm.
Auricular height	115 mm.
Interorbital width	24 mm.
Cephalic index	85 (approx.)

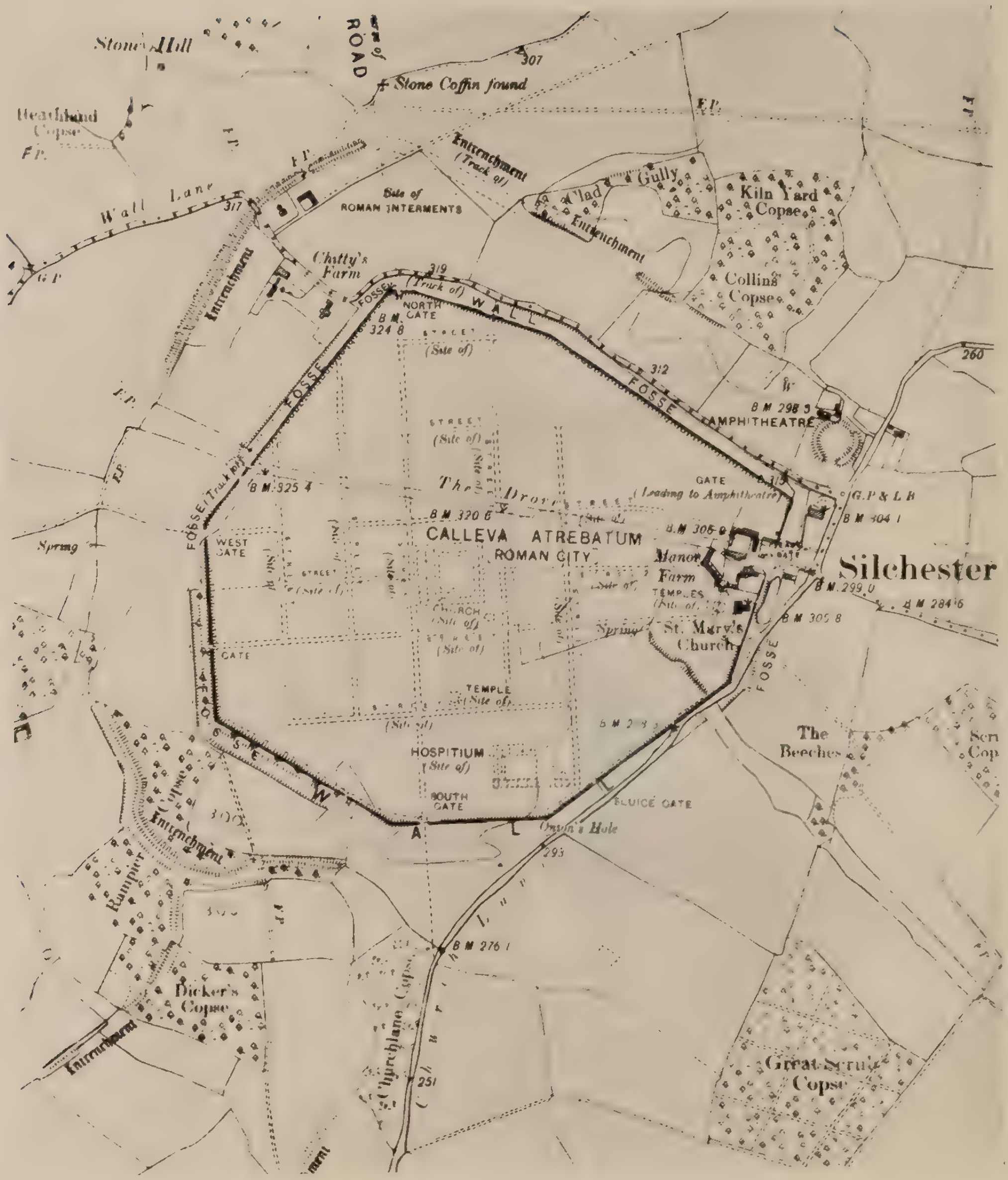
These scanty findings confirm the extreme brachycephaly present, obvious on mere inspection. Mathematical data, even when more abundant than in the present instance, are of but limited utility in the assessment of morphological type and characters, and even so, require translation into, and reinforcement by, some convenient pictorial medium. Accordingly various outline tracings of the Châtelperron calvaria were made and their comparison effected with similar tracings of Upper Palaeolithic crania published by Dr. G. M. Morant [*Annals of Eugenics*, iv (parts 1 and 2), 1930, pp. 109–214]. It was thus found that, allowing for the brachycephaly present in the Wellcome Museum specimen, an essential morphological agreement obtains between it and certain crania of undoubted Upper Palaeolithic provenance. Thus in total length, the Châtelperron cranium is matched by the Cromagnon II ♀, Solutré 1923 I, and Předmost X ♀ crania—though all these three skulls are naturally narrower. In horizontal contour Châtelperron is closely matched by Solutré 1923 II ♂, which also agrees fairly closely in maximum length and breadth.

Compared with the Châtelperron sagittal contour, Solutré 1923 II ♂ agrees as to brow and bregma, but falls short in antero-posterior diameter: Solutré 1923 III ♂ agrees fairly well, the bregmatic region corresponding perfectly, but differs in its more vertically disposed brow: Solutré 1924 IV ♂ agrees as to brow, vault outline, pre-lambdoid flatness, occipital configuration, and other details, but is altogether a bigger and longer skull: Solutré 1924 V ♀ is essentially similar in contour, but is less in auricular height: Předmost X ♀ agrees roughly, especially in occipital detail, but its brow is more vertical and its postero-median parietal area is different: Obercassel ♀ manifests a relatively close correspondence.

Morphologically, the Châtelperron calvaria agrees, in sagittal contour, with the Solutrean crania 1923 II ♂, 1924 IV ♂, 1924 V ♀, with the Předmost ♂ crania II and IX and with the Obercassel ♀ cranium. In transverse and horizontal contour the Châtelperron and Solutré 1923 II ♂ crania manifest good agreement. (See fig. 6.)

There thus appears to be a sufficiency of morphological evidence to justify the reference of the Châtelperron calvaria to an Upper Palaeolithic origin. This evidence finds strong support in both the archaeological history and the intrinsic physical characters of the specimen. The entire evidence available does not, of course, constitute any absolute proof of Aurignacian antiquity, but the inference from it must stand until, if ever, proof to the contrary shall be forthcoming.

PLATE XXVIII


Stone Hill
ROAD
307
Stone Coffin found
Heathland Copse
F.P.
Wall Lane
317
Entrenchment (Track of)
Site of ROMAN INTERMENTS
Gully
Kiln Yard Copse
Chitty's Farm
319
FOSSE (Track of)
NORTH GATE
B.M. 324.8
WALL
STREET (Site of)
Collins Copse
Entrenchment
312
FOSSE
260
B.M. 298.3
AMPHITHEATRE
STREET (Site of)
The Drove
B.M. 325.4
FOSSE (Track of)
GATE (Leading to Amphitheatre)
G.P. & L.B.
B.M. 304.1
B.M. 320.6
CALLEVA ATREBATUM
ROMAN CITY
B.M. 305.0
Manor Farm
Silchester
WEST GATE
Spring
STREET (Site of)
TEMPLES (Site of)
B.M. 299.0
B.M. 284.6
CHURCH (Site of)
STREET (Site of)
St. Mary's Church
Spring
B.M. 305.8
GATE
TEMPLE (Site of)
(Site of)
The Beeches
HOSPITIUM (Site of)
SOUTH GATE
SLUICE GATE
Onion's Hole
293
Rampart
Entrenchment
B.M. 276.1
Dicker's Copse
Churchlane Copse
251
Great Scrubs Copse
Entrenchment

Plan of Silchester (*Reproduced from the Ordnance Survey map, with the sanction of the Controller of H.M. Stationery Office*)

Published by the Society of Antiquaries of London, 1947

Excavations at Silchester 1938–9

By M. AYLWIN COTTON

THE Roman town of Silchester, and the traditional site of Calleva Atrebatum, after a respite from excavation for some eighteen years, was again investigated during 1938–9. In 1937 the Duke of Wellington handed over to the Ministry of Works and Buildings for restoration and preservation the stretch of the north wall of the town from the amphitheatre gate to the north gate. After a preliminary clearing of undergrowth and timber, work was started on the masonry during 1938. As this involved trenching along the bank behind the wall, a procedure which inevitably destroys dating evidence, it was felt that before this was completed a series of trenches should be cut through this bank at right angles to the wall to determine what dating evidence and structure existed. Mr. P. K. Baillie-Reynolds, on behalf of the Ministry of Works and Buildings, asked me to supervise this work. Excavations were started in June 1938 and continued for seven weeks. During this time the work on the inner defences was completed, except for the ditches outside the wall which involved a further season's work in April 1939, lasting for five weeks.

Sufficient knowledge of the inner defences was obtained from the 1938 season to make it highly desirable to complete the picture by sectioning the outer earthwork, and by following up the street-plan and the extension of any occupation of the town between the wall and this earthwork. This involved an elaboration of the original scheme planned for 1939, and this was made possible by the interest and financial assistance of the Royal Archaeological Institute of Great Britain and Ireland, who sponsored it as part of their research campaign for 1939. An account of the excavations was read at a meeting of the Institute on 10th January 1940. A further grant towards the cost of investigating the early Roman occupation of the town was made by the Haverfield Bequest Fund, as the work undertaken dealt with problems outlined by the late Professor Haverfield in his own account of Silchester.[1]

It is difficult to express adequately my gratitude to the Institute, the Haverfield Bequest Fund, and the owners and tenants of the properties involved. My thanks are due to the Duke of Wellington, Professor Rushbrooke Williams, and Mrs. Thorold as owners; to the late Lt.-Colonel J. B. P. Karslake for his visits and helpful advice; and to Mr. Bonser and Mr. Petts, the tenants.

I wish to acknowledge my indebtedness to the Ancient Monuments Department of the Ministry of Works, and to Mr. P. K. Baillie-Reynolds, for all the arrangements they made with the Duke of Wellington's estate. The services of their expert foreman, Mr. Rogers, and their workmen were much appreciated: and all expenses in 1938 were met by the special Silchester Restoration Fund.

I should like to thank all the voluntary workers who made such an efficient and hard-working team. Especial thanks are due to Mr. W. A. Smallcombe of the Reading Museum for his co-operation; to his two assistants, Mr. Paterson and Mr. Scott, and to Miss K. M. Richardson, Miss M. Whitley, and Miss A. Stiebel, who acted as supervisors; to Mr. A. H. A. Hogg for his help in the 1939 survey; and to Miss T. M. I. Newbould, whose general help throughout was invaluable.

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[1] *Victoria County History of Hants and the Isle of Wight*, i, 271–84.

I must also acknowledge with feeling the work of the late Dr. T. Davies Pryce in identifying and dating the *terra sigillata*; and my thanks are also due to Mr. Derek Allen for reporting on the coins; and to Mr. R. V. Melville for the report on the building-stones of the wall. I am also deeply grateful to Dr. R. E. M. Wheeler for his visits to the site and for constant support and advice; and, for subsequent criticism of the results obtained and their implications, I should like to thank him, Prof. C. F. C. Hawkes, and Miss K. M. Kenyon.

Roman Silchester, or Calleva the capital city of the Atrebates, is situated on a gravel plateau above the 300-ft. contour line in a corner of Hampshire enclosed by a bend of the Berkshire boundary. The greater part of the site is now under cultivation, except for the marshy areas to the south-west in Rampier's Copse. The subsoil is gravel resting in places on clay. The polygonal stone walls of the town enclose an area of about 100 acres, and in some places still stand 20 ft. high. They are surrounded by the great outer earthwork which is most marked to the north-west and south; on the east it appears to coincide with the line of the town walls. The earthwork encloses about 230 acres (pl. XXVIII).[1]

Of the previous excavations undertaken at Silchester the most noteworthy are those of the Rev. J. G. Joyce, and the research work undertaken by the Society of Antiquaries during the years 1890–1909. The Rev. J. G. Joyce left a record of his work in a diary, illustrated with water-colour drawings, which is now preserved in the Municipal Museum, Reading. The reports of the Silchester Excavation Committee for 1890–1909 are published in *Archaeologia*, vols. lii to lxii, and these have been amplified since by the publication in 1916 by Mr. T. May of *The Pottery found at Silchester*.[2] The principal aim of the Committee was the recovery of the ground-plan of the city, and the material collected in these excavations forms the famous Silchester Collection deposited by the Duke of Wellington in the Municipal Museum at Reading. Summaries of the extent of our knowledge of the site were made by Professor Haverfield and Mr. George Fox,[3] and served to indicate some of the problems still unsolved.

Very briefly summarized, the consensus of opinion is in favour of identifying Silchester with the Romano-British Calleva Atrebatum. Calleva, as the capital of the Belgic Atrebates, was a town mentioned by Ptolemy, the Antonine Itineraries, and by the so-called Ravennas.[3] The identification of Silchester with Calleva was first suggested by Horsley in his *Britannia Romana* (1734). Three criteria must be satisfied before Silchester can be identified as Calleva Atrebatum:

1. The Itinerary states that Calleva was the meeting-place of roads from London, Venta Belgarum, and Spinae.

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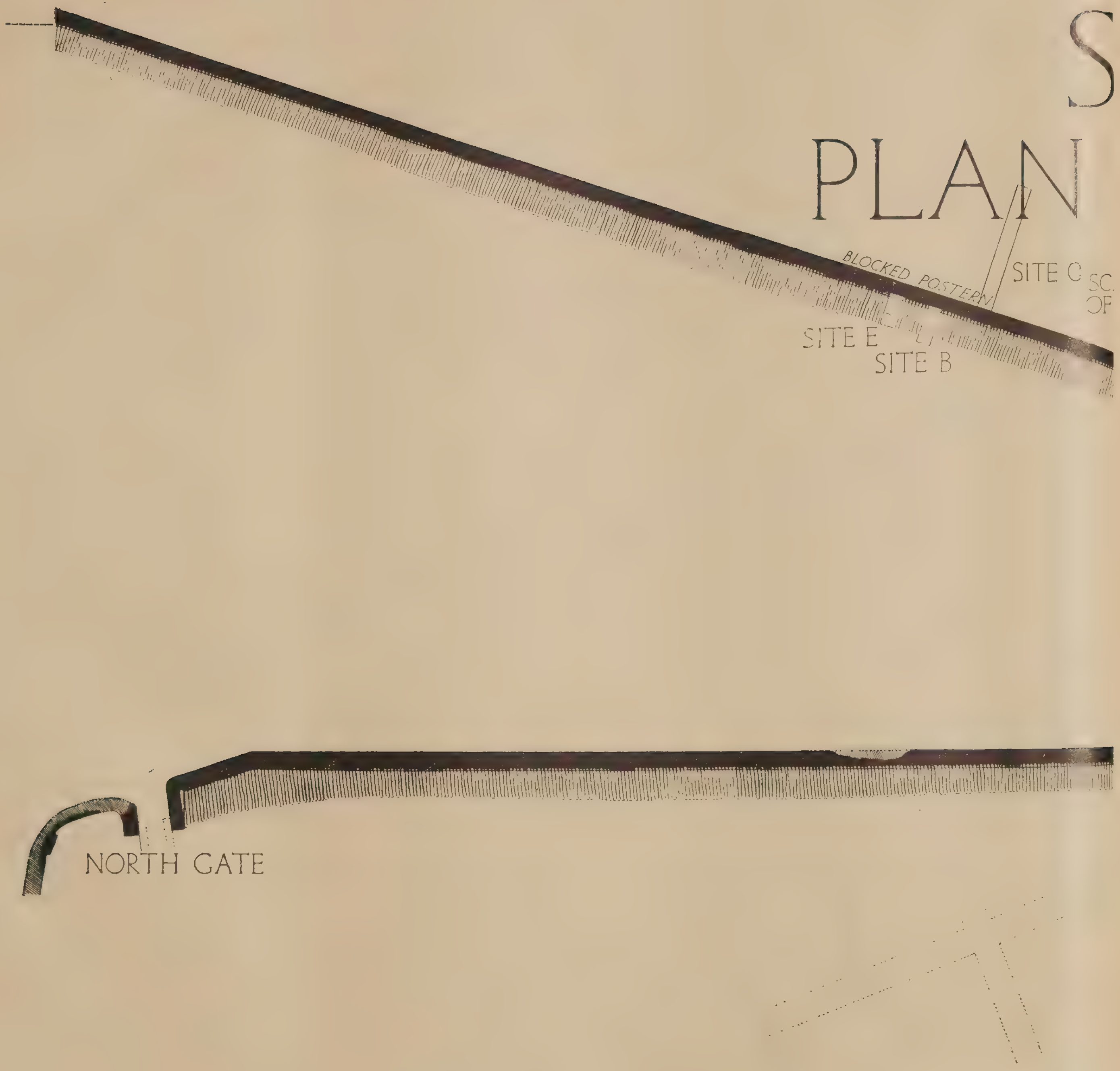
[1] O.S. 1/2,500. Berkshire, sheet xliv, 12, Hampshire, sheet iv, 12 and sheet iv, 16, 1911 edition.

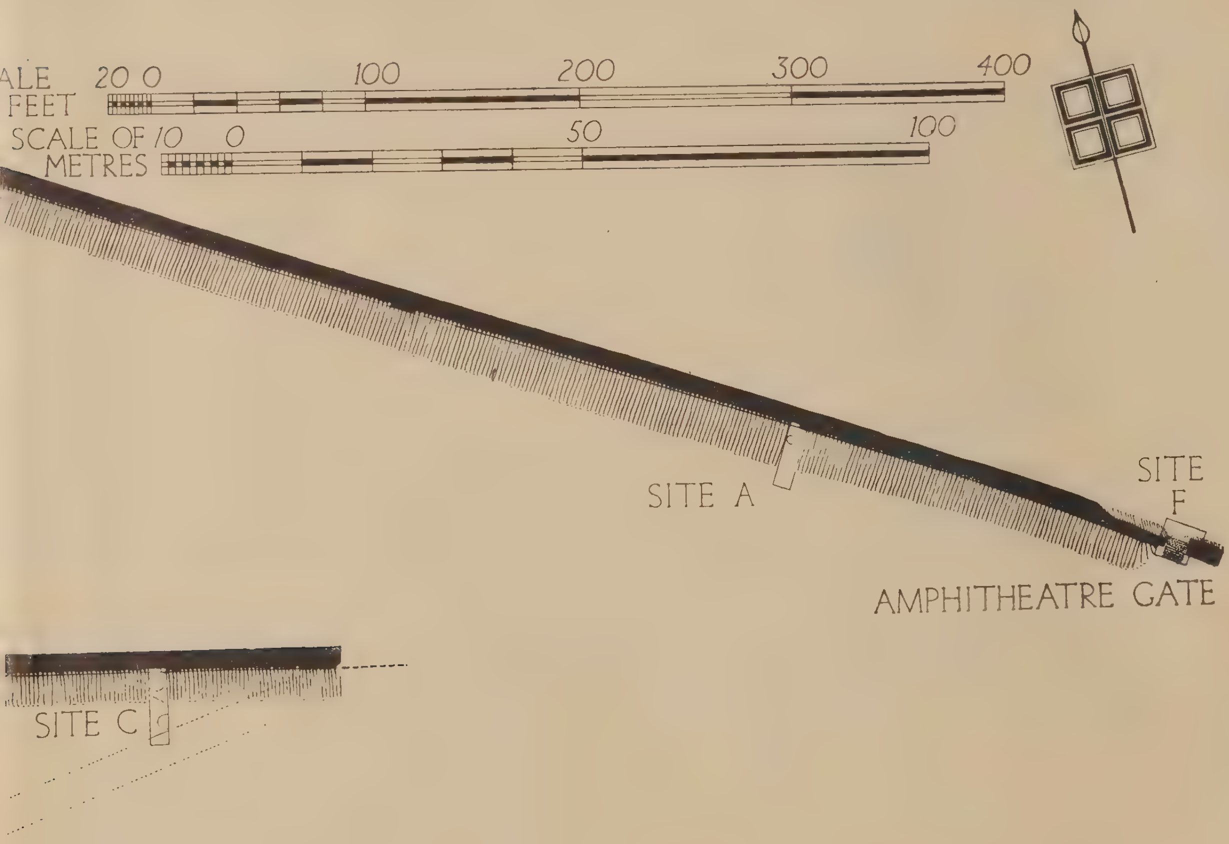
[2] *The Pottery found at Silchester*, a descriptive account of the pottery recovered during the excavations on the site of the Romano-British city of Calleva Atrebatum at Silchester, Hants, and deposited in the Reading Museum, Thomas May, F.S.A. (Scot.), 1916.

[3] *V.C.H. Hants and the Isle of Wight*, i, 271 ff.


S
PLAN
BLOCKED POSTERN
SITE C
SC.
OF
SITE E
SITE B
NORTH GATE

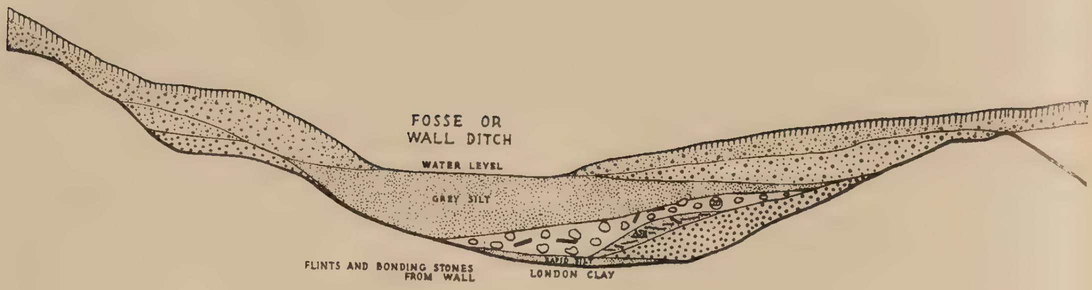
Published by the Society of Anti

ILCHESTER
OF NORTH WALL


ALE 20 0 100 200 300 400
FEET
SCALE OF 10 0 50 100
METRES
SITE A
SITE F
AMPHITHEATRE GATE
SITE C

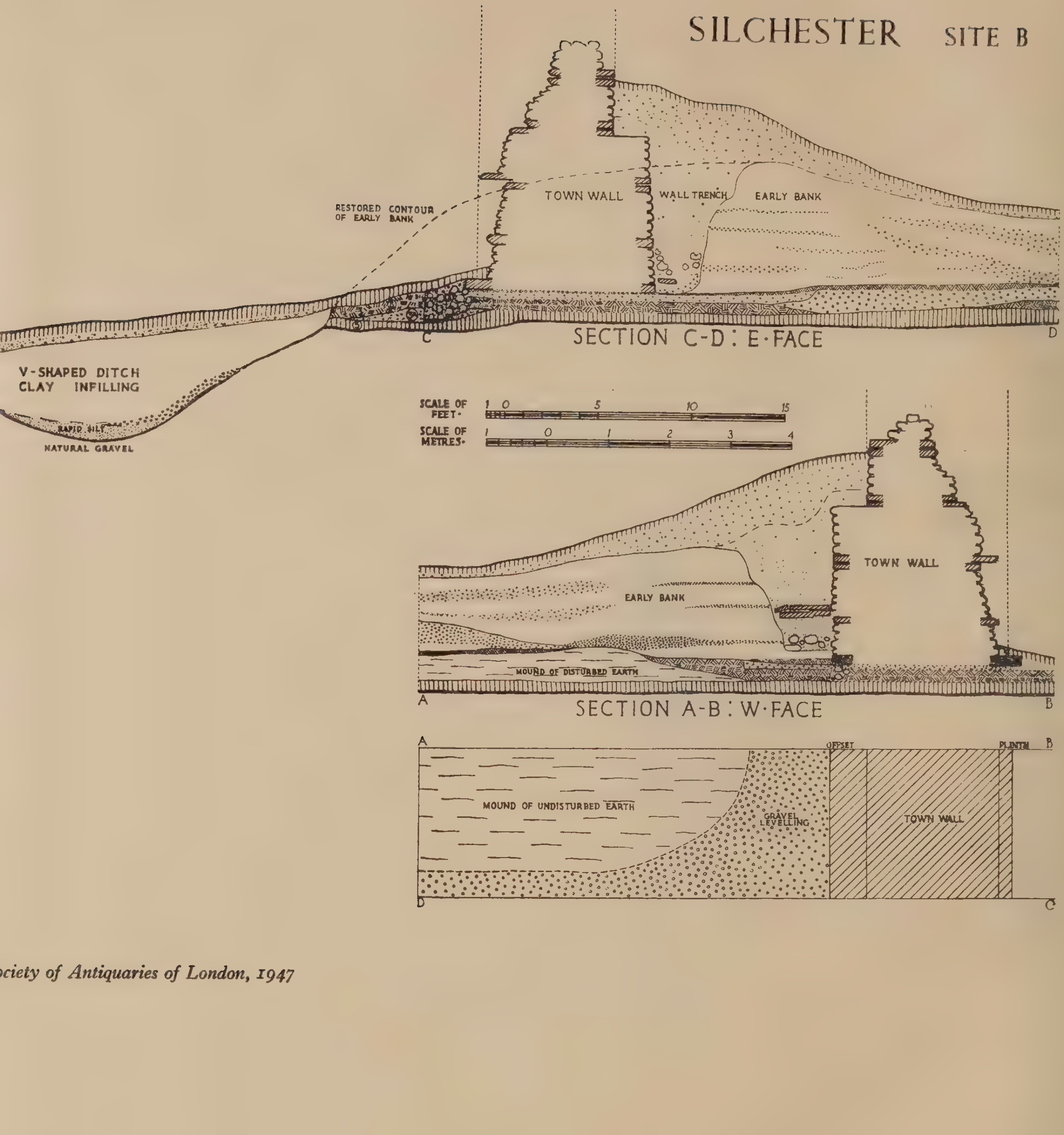
quaries of London, 1947

SITE·G·
EAST·WEST·SECTION·


FOSSE OR
WALL DITCH
WATER LEVEL
GREY SILT
FLINTS AND BONDING STONES
FROM WALL
RAPID SILT
LONDON CLAY

Published by the S

SILCHESTER SITE B


TOWN WALL
WALL TRENCH
EARLY BANK
RESTORED CONTOUR OF EARLY BANK
C
D
SECTION C-D: E·FACE
V-SHAPED DITCH CLAY INFILLING
RAPID SILT
NATURAL GRAVEL
SCALE OF FEET·
1 0 5 10 15
SCALE OF METRES·
1 0 1 2 3 4
TOWN WALL
EARLY BANK
MOUND OF DISTURBED EARTH
A
B
SECTION A-B: W·FACE
A
OFFSET
PLINTH
B
MOUND OF UNDISTURBED EARTH
GRAVEL LEVELLING
TOWN WALL
D
C

ociety of Antiquaries of London, 1947

2. If the Itinerary numerals are correct Calleva was by road some twenty-two Roman miles from Venta, about as far from the Thames crossing of the London road, and about fifteen miles from Spinae.
3. Calleva is described by Ptolemy and the Itinerary as a tribal centre and the end-station of several routes. It was no posting-house, but a town.

Silchester is the only site which adequately fulfils these conditions.

Until now it has been accepted that Calleva was of pre-Roman foundation and was a Celtic tribal centre. The outer earthwork was presumed to be pre-conquest. Although detailed knowledge of the town-plan, buildings, and other structures inside the walls was available, very few of these were at all closely dated. Although so much had been accomplished, there were still many pages in the history of Silchester that were blank. The 1938–9 excavations only tackled three of these many problems: the structure and date of the inner defences, the extent of the street-plan and occupation of the town between the wall and outer earthwork, and the structure and date of the outer earthwork itself.

THE INNER DEFENCES

The inner defences were examined in seven areas along the north wall, Sites A–G (pl. XXIX). The wall is backed by an earthen ramp, and sections were cut through this bank at right angles to the wall. Site A was chosen to include half of one of the counterforts of the wall, Site B was an intermediate station, and Site C to connect up with the street dotted on the final plan of 1908.[1] A trench was dug inside the wall and parallel to it on Site D for the purpose of exposing the masonry for preservation, but only unstratified material was obtained from it. Its most useful feature from an archaeological point of view was that it proved the existence of a constant internal offset along all stretches of the north wall uncovered. Site E was the section inside the wall opposite a blocked postern gateway. Site F was the clearance of the amphitheatre gate preparatory to its restoration. Site G was the section, as nearly opposite Site B as possible, outside the wall, through the ditches up to the modern roadway.

The evidence from the four cuttings through the bank, A, B, C, and E, was consistent, and would appear to hold good for the entire north wall. In the sections it was possible to differentiate five periods (figs. 1–3 and pls. XXX and XXXI).

Period I. The earliest occupation in the area, or the remains of the humus which covered the natural gravel at the time the site was first occupied. This level occurred on all four sites.

Period II. Remains of timber huts or houses and their associated occupation-levels. These huts existed on Sites C and E only.

Period III. A black occupation-layer which was found in all four cuttings. This level has been called the 'early-occupation', using the word 'early' in relation to the later earthen rampart. It also passed under and ante-dated the wall.

Period IV. A bank of sandy clay and gravel of which the outer slope was later cut away when the wall was built.

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[1] *Archaeologia*, lxi (1909), facing p. 486.

Period V. The stone wall, the wall-trench with its in-filling, and a late bank which made up the ramp to a uniform slope.

Period I. The Earliest Occupation, c. A.D. 45–65

This layer, the equivalent of the old humus, was found on Sites A, B, C, and E (figs. 1–3 and pl. XXX). It showed traces of a scattered occupation, but the only contemporary structures were Pit A1 (fig. 1), and traces of a hut on Site E (fig. 3) which underlay a later re-planned hut. Only three post-holes of this hut occurred in the 8-ft. cutting (E1, E2, and E3), and it was not possible to recover the hut-plan. Pit A1 had a uniform infilling and yielded most of the pottery used for dating this period.

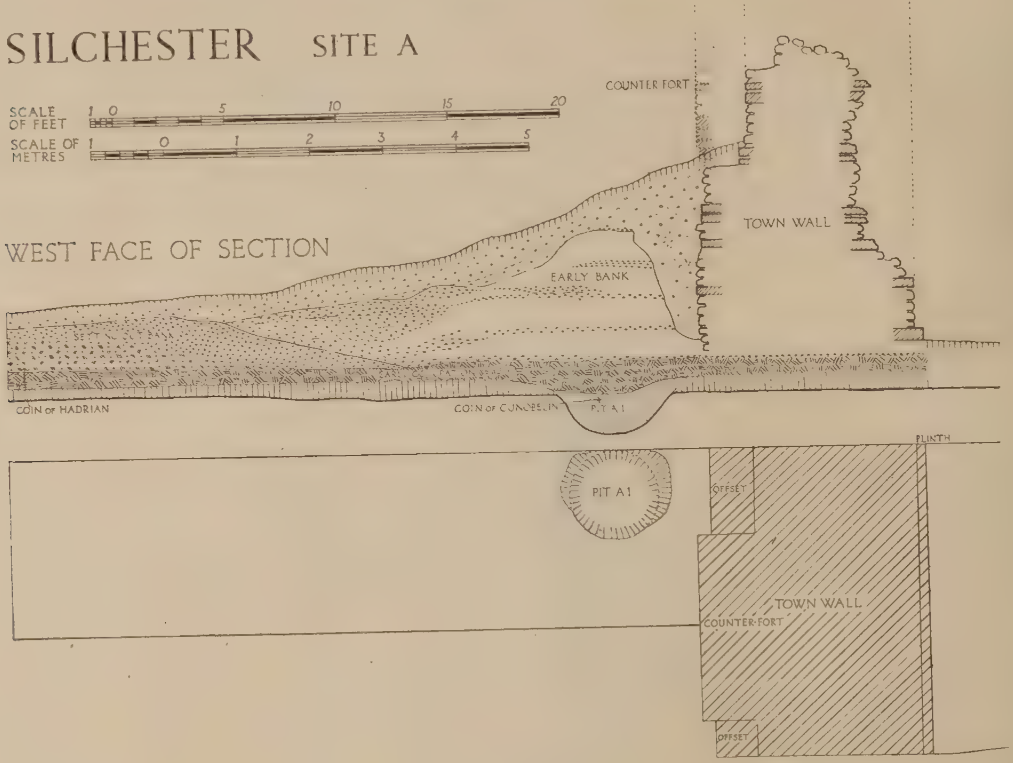
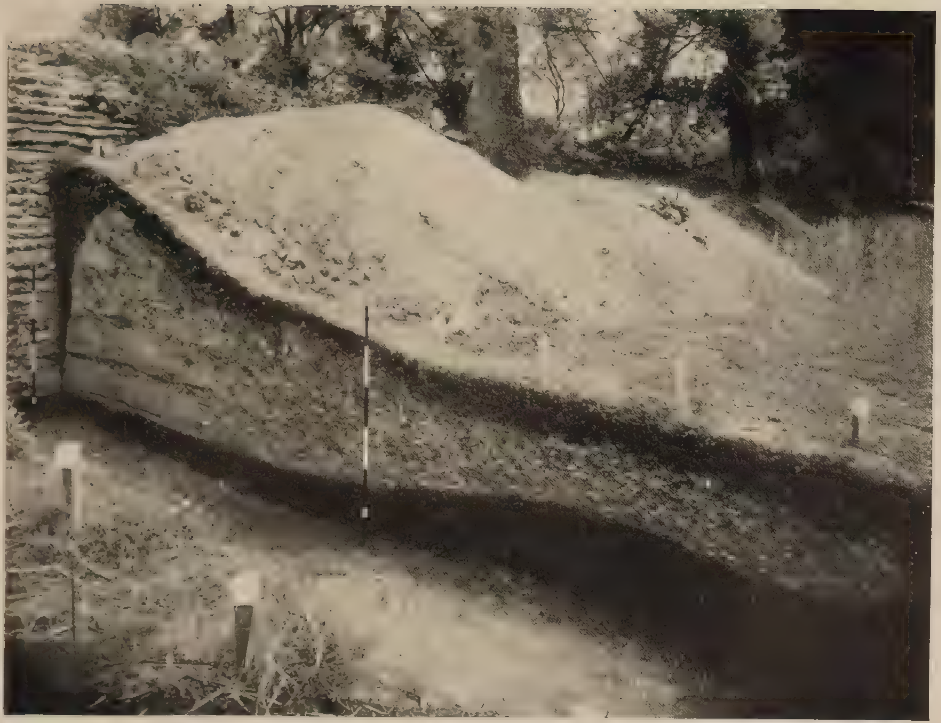
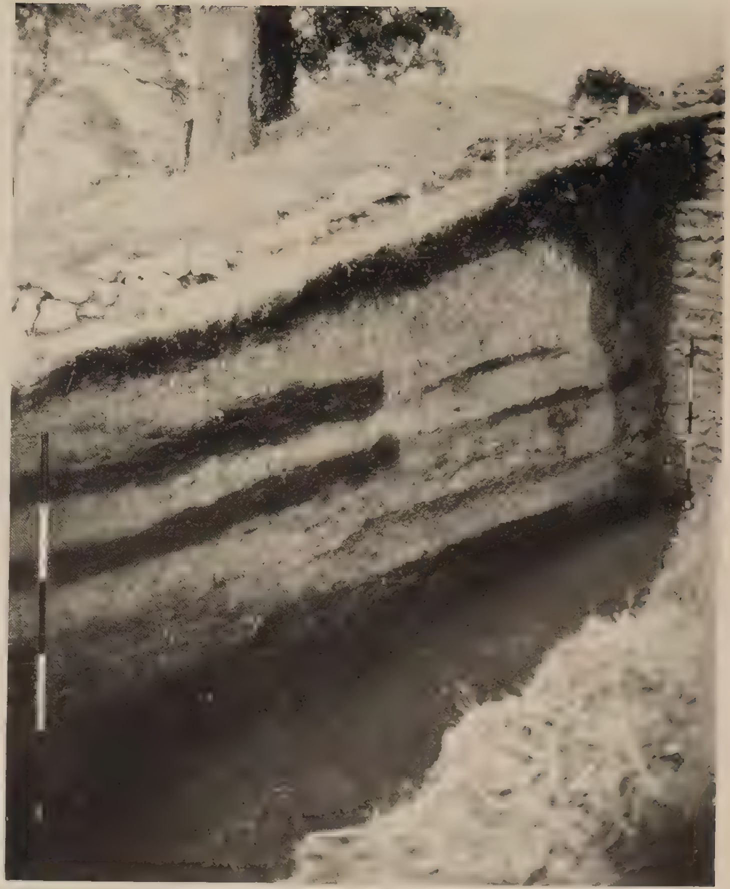

SILCHESTER SITE A
SCALE OF FEET
1 0 5 10 15 20
SCALE OF METRES
1 0 1 2 3 4 5
COUNTER FORT
TOWN WALL
WEST FACE OF SECTION
EARLY BANK
COIN OF HADRIAN
COIN OF CUNOBELIN
PIT A1
PLINTH
PIT A1
OFFSET
TOWN WALL
COUNTER-FORT
OFFSET

Fig. 1

This pottery falls into two groups; the imported wares, and the local or native wares (fig. 11 and pp. 152–6). No decorated *terra sigillata* was found, and the plain forms though fragmentary and small in quantity, could all be assigned to pre-Flavian times, and two of the forms were definitely Claudian. The imported butt-beaker with an internal offset (fig. 11, 2) is a Tiberian form nearer to examples found at Haltern than those at Hofheim. It was associated with a coin of Cunobelin of *c.* A.D. 25–50. The other imported beaker (fig. 11, 1) has a rim form which is also rare at Hofheim but compares with Loeschcke's Type 84*a* at Haltern. The oblique-rimmed pots



a. Site A. East face of section



b. Site B. West face of section

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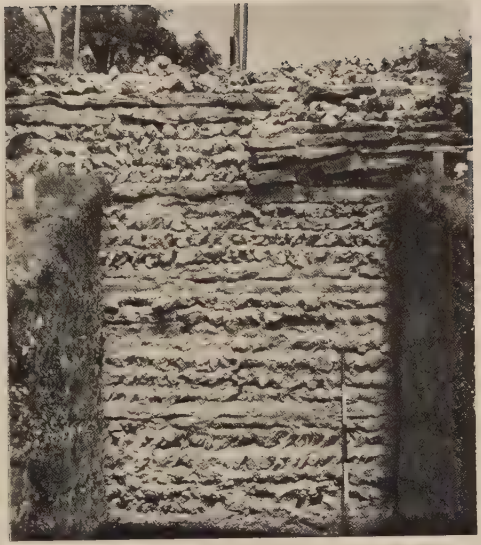
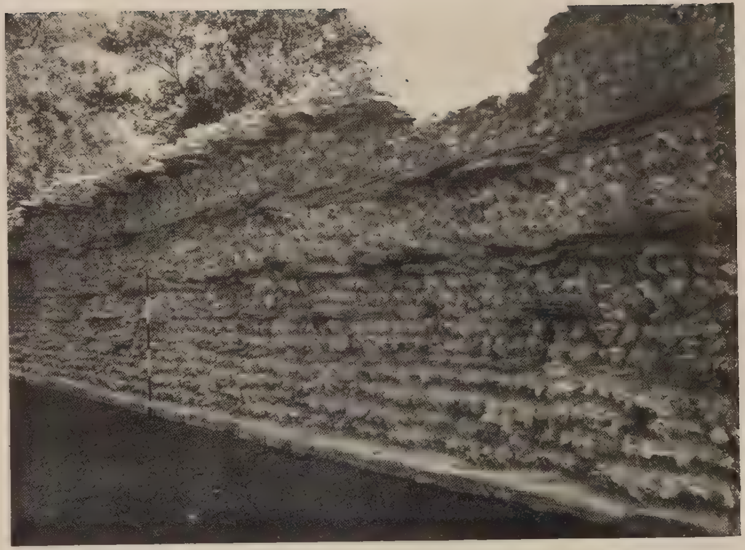
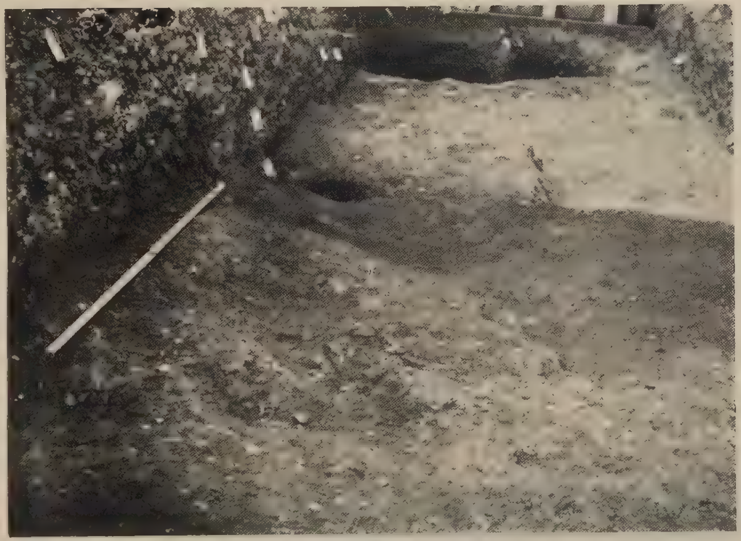
PLATE XXXII



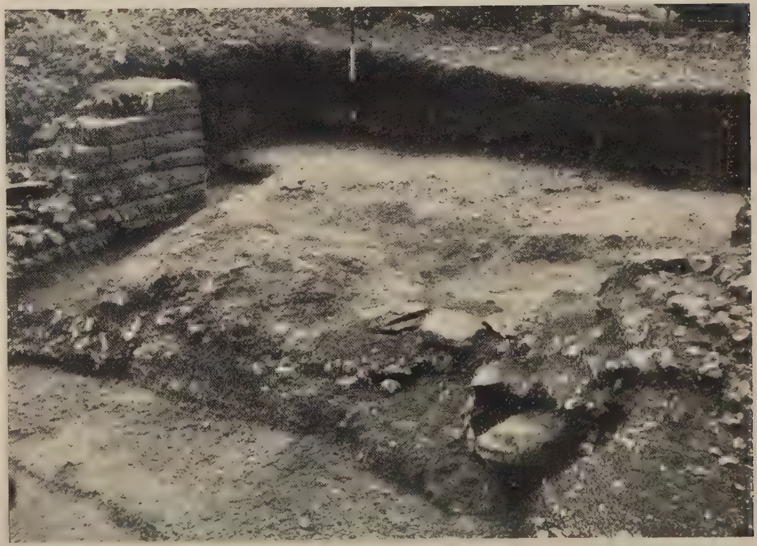
a. Site A. Counterfort



b. The north wall after restoration



c. Clay floor of Hut C 1



d. Site F. Amphitheatre Gateway

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(fig. 11, 6 and 8) of imported ware find analogies in those found during the 1938 excavations at Verulamium,[1] in the level equating with the earliest occupation of Insula XVII dated *c.* A.D. 45–55. The native wares were rich in the coarse hand-made pottery. Sherds of native butt-beakers occurred (pl. XXXVII *b*), and the cordoned vessels (fig. 11, Nos. 4, 11, 16, 18), though Belgic in tradition, fall most easily into the Claudian phase of that long-lived type. The remaining types are strongly Belgic in form, and some have a shiny burnish. Only one true Wessex bead-rim occurred (fig. 11, 24). Too few bases were found to permit of any general statement, but no true pedestal base occurred.

Although as a group a Belgic *facies* cannot be overlooked, in all four areas this pottery was associated with Claudian or pre-Flavian Samian, and the occupation cannot, therefore, have been pre-conquest. The succeeding sealing layer of Period II, Phase I, will be seen to be early Flavian in date, so that a wide dating for Period I of A.D. 45–65 seems indicated. This dating of the earliest occupation under the north wall as Claudius/Nero left unsettled the question of the Belgic occupation of Calleva, and was one of the reasons for exploring further in the 1939 season. The total area uncovered was only about 800 sq. ft., and in view of the known 'patchy' occupation of other well-attested Belgic sites, and remembering that large and imposing earthworks in use during the Belgic period as at Oldbury, Kent,[2] were not of necessity extensively occupied, no conclusion about any pre-conquest occupation could be drawn from this new evidence.

Period II. Phase I, c. A.D. 65–100

On Sites C and E (figs. 2, 3 and pls. XXIX, XXXII *c*) remains of two huts were discovered. It was not possible to recover the complete plans as so much lay under the bank, but enough was uncovered to show that they had timber posts and clay floors with successive hearths. Mr. Mill Stephenson suggested[3] that many of the houses in the town were built using brick and stone only in the lower courses and the foundations, and that the walls of the lower story were of lathing thickly daubed with clay, with a possible wattle-and-clay upper story. Covering many of the tessellated floors an 18-in. layer of thick clay was found representing the collapsed wall. In the two early huts or houses found on Sites C and E the floors were of clay laid on a clean gravel bed, and they had circular post-holes which had held the wall-timbers, but no stone foundations were found. The hut on Site C showed two phases.

Phase I (fig. 2) is represented by two hearth pits and a heavily burnt layer which shows the fate of this early hut. Associated with this layer was Pit C3, which may have been dug to clear up the debris with which it was filled, and it was then sealed by the re-flooring of this hut. The post-holes C4 and C5 were contemporary with this phase.

The pottery associated with phase I was mainly early Flavian in date (fig. 12 and pp. 156–8). That from Pit C3 contained many pre-Flavian types which were some of the earliest examples found, but these had probably been displaced in the reconstruction.

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[1] *Archaeologia*, xc (1944), fig. 12, nos. 30–3, and p. 105.

[2] 'Excavations on the Iron Age Hill-fort of Oldbury, near Ightham, Kent', J. B. Ward Perkins, F.S.A., *Ibid.*, p. 129.

[3] *Ibid.*, lviii (1902), 24.

The pit itself, however, could not have been filled up before early Flavian times, as it contained the base of a Samian Form 27 bowl with the stamp of IVCVNDVS, a potter who worked mostly in the early Flavian period. This pit contained six brooches (fig. 7, nos. 5, 6, 10, 11, 14, and 16), all mid-first-century types. At Leicester[1] only one house with stone foundations was found in the Flavian period in levels earlier than the Forum, and close parallels appear to exist between these two provincial capitals in their earlier history.

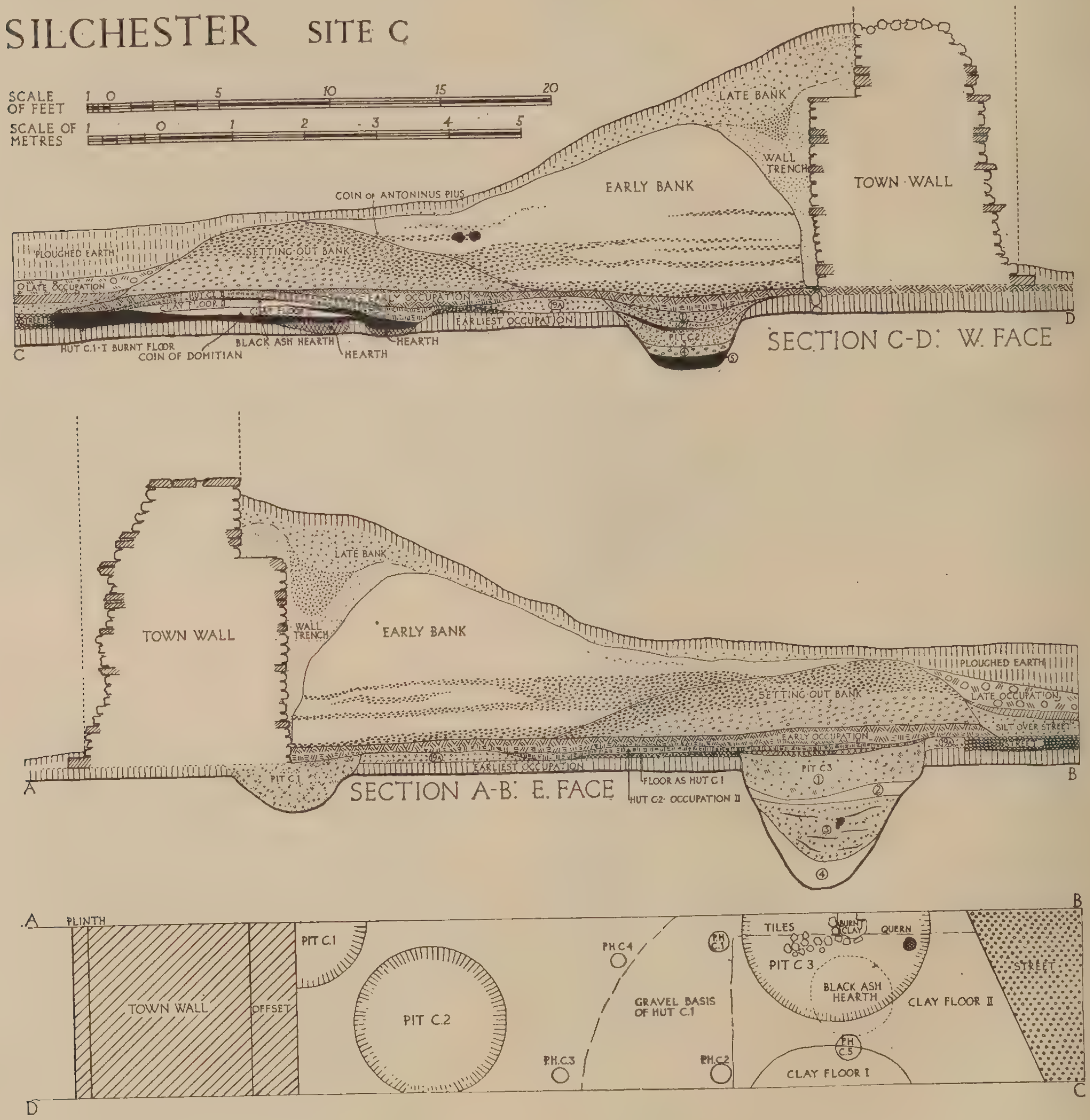
SILCHESTER SITE C
SCALE OF FEET 1 0 5 10 15 20
SCALE OF METRES 1 0 1 2 3 4 5
LATE BANK
WALL TRENCH
TOWN WALL
EARLY BANK
COIN OF ANTONINUS PIUS
PLOUGHED EARTH
SETTING OUT BANK
LATE OCCUPATION
HUT C.1
CLAY FLOOR II
CLAY FLOOR
EARLY OCCUPATION
EARLIEST OCCUPATION
STREET
19A
PIT C2
5
C
HUT C.1-I BURNT FLOOR
COIN OF DOMITIAN
BLACK ASH HEARTH
HEARTH
HEARTH
D
SECTION C-D: W. FACE
TOWN WALL
WALL TRENCH
LATE BANK
EARLY BANK
PLOUGHED EARTH
SETTING OUT BANK
LATE OCCUPATION
SILT OVER STREET
EARLY OCCUPATION
STREET
19A
EARLIEST OCCUPATION
PIT C.1
A
SECTION A-B: E. FACE
FLOOR AS HUT C1
HUT C2· OCCUPATION II
PIT C3
①
②
③
④
B
A
PLINTH
TOWN WALL
OFFSET
PIT C.1
PIT C.2
P.H.C4
P.H.C3
P.H.C1
P.H.C2
GRAVEL BASIS OF HUT C.1
TILES
BURNT CLAY
QUERN
PIT C 3
BLACK ASH HEARTH
CLAY FLOOR II
P.H. C.5
CLAY FLOOR I
STREET
B
D
C

FIG. 2

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[1] Information from Miss K. M. Kenyon (publication forthcoming).

Period II. Phase II, c. A.D. 100–120

Phase II of this period is represented on Site C in the rebuilt hut. The alteration in the plan is shown by the position of the post-holes C1, C2, and C3 (fig. 2). At first a thick layer of putty-coloured clay was laid down (fig. 2, Clay Floor I), and a hearth was placed over the mouth of Pit C3. This floor contained a coin of Domitian of A.D. 86–7 well-bedded in the clay. This intermediate stage in the history of Hut C was probably contemporary with the second phase of Hut E1 (fig. 3). As only the edge of Hut E1 fell within the section very little of its plan could be recovered. In the debris outside, which contained contemporary material, a coin of Domitian of A.D. 84–5 was found. No later floors were found in this hut, but Hut C developed further. A later floor (fig. 2, Clay Floor II) was laid down and the position of the hearth changed. Tiles and a discarded quern were embedded in this floor (pl. XXXII *c*). Pit C2 was contemporary with this last floor and contained four brooches, three of first-century date (fig. 7, nos. 3, 7, and 9), but the enamelled brooch (fig. 8, no. 3) belongs to the early second century. The pottery found in this pit may also be dated to the early second century, no types being later than about A.D. 120 (fig. 13 and pp. 158–61).

Occupation-debris covered this last floor (fig. 2), and in it and the debris layer outside the hut early-second-century pottery was found (fig. 13 and pp. 158–61), and the trumpet-headed brooch of a type not in use in the south of England before A.D. 100 (fig. 8, no. 1). In this occupation-layer an antefix was found also (pl. XXXVI *c*). It must have been made from a local mould as three identical examples have already been found at Silchester.[1] Its presence here, in association with the tiles, suggests that a more ambitious roof-structure than thatch was used for this hut. The hut's history ended when the street was built, as its foundations cut through the floors and the mound was levelled up by the succeeding occupation.

Pit C1 was only partially excavated and mostly lay under the wall. It yielded very little pottery but probably belonged to this phase.

For the *terra sigillata* found in the levels of this period see p. 150, and for the coarse pottery with the dating evidence see pp. 158–61.

The north end of the town during the late Flavian and Trajanic periods was not perhaps extensively occupied; indeed, no levels referable to these periods were found on Sites A and B; but when we consider the total number of villas and buildings recovered belonging to the later periods this sparseness of earlier population in such a large area is consistent. The general street-plan had not reached the north end of the town, but some of the more important municipal buildings may have existed. The Forum and the earliest period of the large Bath building in Insula XXXIII were probably already built. The early portico of these baths, attributed to the reign of Nero,[2] although a valuable adjunct to the building, had to be scrapped when the street-plan was drawn up as it was out of alinement. At this stage of Silchester's history the occupation of the town could have extended to the outer earthwork, and investigation of this occupation outside the town walls appeared essential and was deferred to the 1939 season.

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[1] *Archaeologia*, liii (1893), 561, shows one from Insula IV, near the Forum.

[2] *Ibid.*, lix (1905), 341, fig. 2.

Period III. The Early Occupation, c. A.D. 120–60/70

The black-earth level was present on all four Sites (A, B, C, and E), but no contemporary structure was found except the street on Site C. Under the bank this level gives us some measure of the period that elapsed between A.D. 120 and the building of the early bank which reduced the area of the town by half. On Site B (pl. xxx) a mound of disturbed earth interrupted it, probably thrown up at the commencement of the building of the early bank and a levelling of clean gravel served as a pathway over which material for building this bank could be brought into the town.

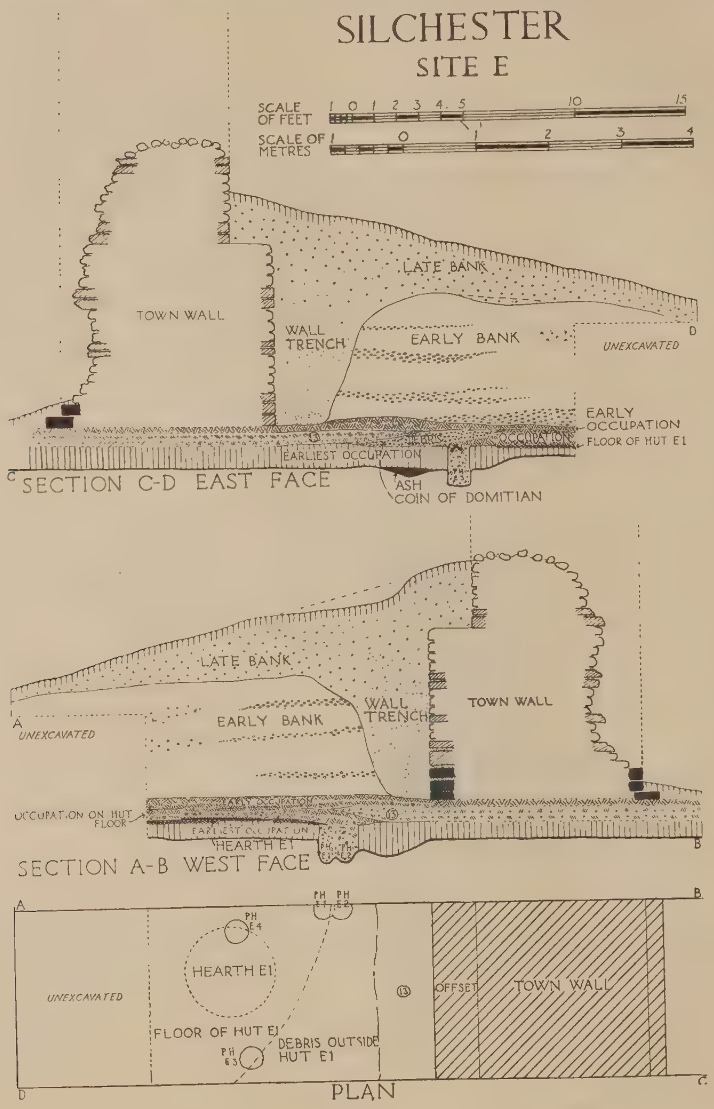
SILCHESTER
SITE E
SCALE OF FEET
1 0 1 2 3 4 5 10 15
SCALE OF METRES
1 0 1 2 3 4
TOWN WALL
LATE BANK
WALL TRENCH
EARLY BANK
D
UNEXCAVATED
EARLY OCCUPATION
OCCUPATION
FLOOR OF HUT E1
EARLIEST OCCUPATION
13
C
SECTION C-D EAST FACE
ASH
COIN OF DOMITIAN
LATE BANK
WALL TRENCH
TOWN WALL
A
UNEXCAVATED
EARLY BANK
EARLY OCCUPATION
OCCUPATION ON HUT FLOOR
EARLIEST OCCUPATION
HEARTH E1
13
B
SECTION A-B WEST FACE
A
PH E1
PH E2
PH E4
B
HEARTH E1
UNEXCAVATED
13
OFFSET
TOWN WALL
FLOOR OF HUT E1
DEBRIS OUTSIDE HUT E1
PH E3
D
C
PLAN

Fig. 3

On Site F, the amphitheatre gateway (fig. 4 and pl. XXXII*d*), a street-level was found under the wall. This evidence, combined with that of Site C which showed the street as contemporary with this period and therefore earlier than the construction of the inner defences, relegates the whole street-plan to a period when the outer earthwork was the only defence. The extent of the street-plan in relation to this earthwork was thus another problem to be tackled in the 1939 season.

The latest dating evidence in the early-occupation layer of Period III and that of the early bank itself should be consistent. The latest datable pieces of Samian from the layer were a rim of Hadrian-Antonine date *c.* A.D. 130–50, several rims with Antonine characteristics, and parts of bowls in cut-glass technique, which are not at present known in any level earlier than those of the Antonine period in the Scottish forts[1] (pl. XXXVII*a* and p. 149). The only coin found was a very worn imitation of Claudius of post A.D. 41, and is out of context. The coarse pottery (fig. 14 and pp. 161–3) included types common to the Antonine period, and a date between A.D. 150 and 160 is possible as the final limit for the occupation of this level under the bank.

Period IV. The Early Bank, c. A.D. 160–70

Sections A, B, C, and E (figs. 1–3 and pls. XXX, XXXI *a* and *b*) were consistent in showing that an earthen bank had preceded the one now seen backing the wall. The method used in building this bank is of interest. First a setting-out bank was thrown up along the intended line. The material for this was probably obtained from a ditch which served as the external limit of the line. The existence of this ditch, which has left no surface indications of its presence, was proved during the 1939 season on Site G (pls. XXX, XXXIV*b*). The setting-out bank at its base showed a pile of early occupation material thrown up on itself (most evident on Site A), then a pile of earth and gravel topped by clean gravel, the reverse sequence of the stratification that would exist at the time a ditch was dug. The main bulk of the bank was built up between the setting-out bank and the ditch to a height of 8 ft. with an internal slope of about 20 ft. It was built of sandy clay, deliberately laced with flat gravel bonding layers. Material must have been brought to the area as there is more than the ditch would provide. The pathway already noted on Site B (p. 128) was probably kept open for this purpose until the bank was completed, and there is a gap in the setting-out bank at this point (pl. XXX). No evidence was found to show that the bank was topped by a palisade, although post-holes may have existed in the cut-away crest. The mound of disturbed earth on Site B (pl. XXX) and the gravel levelling were probably contemporary with the commencement of the building of the bank in that area. In this mound was found a white pipe-clay figure of Venus of a normal Roman pattern (pl. XXXVI*d* and p. 147).

The dating evidence from the bank itself depends on two strong points:

(i) The *terra sigillata* (p. 151) was almost entirely second century, the two latest rims being a Form 31 of Antonine date, and an 18/31 plate dated A.D. 150–60. This agrees with the final dating for Period III as possibly A.D. 150–60, the earliest time at which the bank could have been built.

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[1] *Proc. Soc. Ant.* xxiii (2nd series), p. 119.

(ii) Two coins were found in the bank. One is of Hadrian of A.D. 118–22, and the other is of Antoninus Pius of A.D. 154–5. This latter coin appears to bring down the date to *c.* A.D. 160–70 or later, and is consistent with the dating suggested by Dr. Davies Pryce of A.D. 160–70 as best suited to the bulk of the Samian ware.

The coarse pottery was mainly Antonine, and distinctive types are illustrated in fig. 15.

Period V. The Stone Wall and Late Bank, c. A.D. 190–210

After a time this Antonine rampart outlived its purpose, and was superseded by a stone wall. The outer slope of the rampart was cut away, the wall built, and the wall-trench, which was filled in on completion of the building, may therefore contain some of the material of the cut-away bank. In some places excess mortar and building material had been thrown into the bottom of this trench (pl. XXX). The condition of the north wall after restoration is illustrated on pl. XXXII*b*. It is built of flint courses laced with regular 'bathstone' bonding-courses in place of the more usual brick construction. It is 9½ in. thick, and at its highest point on the southern side of the town still stands to a height of about 20 ft. An external plinth of 9-in. stones finished it. Originally the flints were faced, but very little of this facing has survived. The gateways were finished with 'ironstones'. The foundations were laid on the early occupation level and were not always mortared to the bottom as the early bank held the lower courses in position. Joints where working groups had met are difficult to detect. This is in contrast to the walls at Caerwent and Pevensey in which the breaks are easily visible. At fairly regular intervals inside, stone platforms or counterforts occur (pls. XXIX, XXXII*a*). At Caerwent[1] these structures are said to be the foundations of the stairways which led up to the parapet walk. No remains of steps have been found at either site as the walls have been wrecked to below that level. The north wall at Silchester had an internal offset of 2 ft. which is constant along all the stretches so far uncovered, and the counterforts, set roughly 200 ft. apart, are founded on this offset, being bonded in or freely built. The flints used in building the wall were easily obtainable from nearby chalk country, and sand for the mortar was also to be found nearby. For the origin of the 'bathstones' and 'ironstones' see p. 143.

The Amphitheatre Gate

During the 1938 season the area shown on the 1908 plan[2] as the amphitheatre gate (Site F) was cleared ready for restoration (fig. 4 and pl. XXXII*d*). This gateway has had a chequered career, and this is at least the third time it has been cleared. An excellent account of its structure was left by the Rev. J. G. Joyce in his diary.[3] Writing on 18th May 1865, he says:

> A careful examination of the gap was made. The opening was filled merely with thorns to the height of the stakes represented here (4 feet 6 inches).[4] In order to ascertain beyond any doubt the nature of the gap in the wall at this place, a workman was ordered to clear out the base of each

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[1] *Archaeologia*, lxxx (1930), 229 ff.

[2] *Ibid.* lxi (1909), facing p. 486.

[3] Now preserved in the Reading Museum.

[4] This refers to his sketch and not only could its details be traced but three of these stakes were found in the filled-in trench.

> apparent quoin so as to test whether it was a true quoin or an accidental fracture. There is an undoubted quoin on each side. He was also directed to search whether the wall is continued across the bottom. He made three openings to test this accurately, one at each side and one in the centre. There is not any wall carried across here. At 18 inches deep he met a bed of hard and deep gravel, similar to that which had been found to form the surface of every street within the walls. . . . This distance from quoin to quoin is 11 feet 6 inches.

The gateway was again examined in 1893 by the Silchester Excavation Committee, and was completely uncovered. Their records, kindly supplied to me by Colonel Karslake, state:

> The outer half, in which the archway is set, had been entirely destroyed and removed, but the side wall of the passage through the wall remained to a length of 4 feet 6 inches to the left and 6 feet $2\frac{1}{2}$ inches on the east where it was 2 feet high. The inner quoin was built of ashlar slabs but that on the west side had been torn out. The passage had a floor of rough blocks of stone which were probably covered with gravel and was 10 feet $10\frac{1}{2}$ inches wide. This was also the width of the north and south gates.

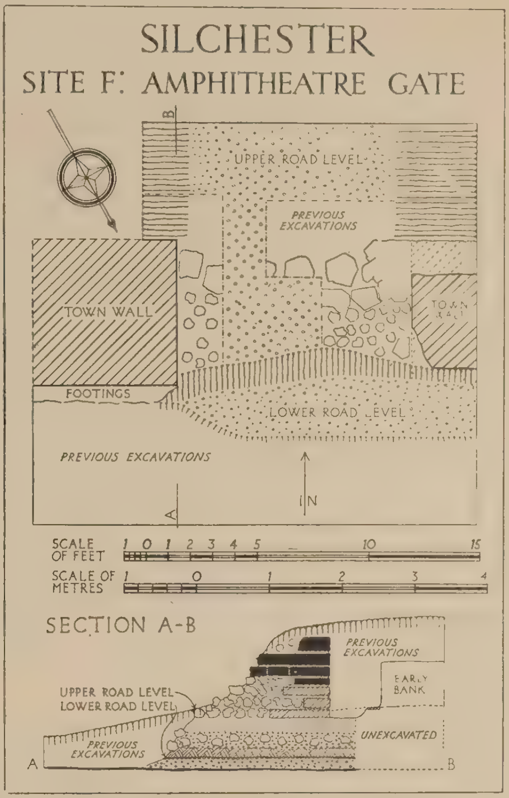
SILCHESTER
SITE F: AMPHITHEATRE GATE
B
UPPER ROAD LEVEL
PREVIOUS EXCAVATIONS
TOWN WALL
TOWN WALL
FOOTINGS
LOWER ROAD LEVEL
PREVIOUS EXCAVATIONS
A
N
SCALE OF FEET 1 0 1 2 3 4 5 10 15
SCALE OF METRES 1 0 1 2 3 4
SECTION A-B
PREVIOUS EXCAVATIONS
EARLY BANK
UPPER ROAD LEVEL
LOWER ROAD LEVEL
UNEXCAVATED
PREVIOUS EXCAVATIONS
A
B

Fig. 4

In addition to confirming these points two distinct street-levels were apparent. The lower was under the wall and antedates it, and may well belong to the original street-plan. A layer of silt overlies it, and then the foundations of the later street. The amphitheatre must have been in existence at the time the wall and gateway were built, but no evidence was found to relate it to the earlier street, and as both streets were completely removed outside the gateway only unstratified soil now remains. It is possible that a bridge may have existed over the outer ditch at this point as no causeway survives at present. The trench against the eastern quoin was deepened to determine the relations of the streets and the wall, but no datable evidence was obtained. Elsewhere on Site F the material obtained was unstratified.

The Blocked Postern

The length of the north wall from the amphitheatre gate to the north gate is about 2,000 ft.; a long stretch without a break. About midway along this stretch two clearly marked straight joints occur, limiting a blocked postern gateway (pl. XXXIII). Outside several ironstones are still in position and show a faced return, but the plinth was carried across the gap and the upper courses of the wall are of one build. The inside was explored on Site E (fig. 3 and pl. XXXIII *a*). The postern had been planned when the wall was built and its sides were faced with ironstones in the fashion of the other gateways, but when the offset was reached a change of plan occurred. The gateway was blocked and the wall above the offset was built at the same time as the rest of the wall at this height. This postern can never have been used as there is no gap in the earlier earthen bank inside (fig. 3), but its proximity to the 'way-in' for material on Site B (p. 128) used when the early bank was built is interesting. This postern may have been designed for the same purpose, but the plan was discarded before the wall was finished, possibly because it was considered superfluous, or as a weakening of the strong defences being erected.

The Date of the Wall

The material for dating the wall was derived from the wall-trench and the late bank which was made up as the wall was finished. The bank has been so well protected by trees and undergrowth that except for tree-roots little disturbance has taken place. On Site A the counterfort overrode the offset slightly and marked the top of the original rampart (pl. XXXII *a*).

The dating evidence was:

(i) The latest pieces of Samian ware (see p. 151) from the late bank were a Form 18 of early-second-century date, and a Form 43 of similar date but which was still commonly found in third-century levels. In the wall-trench, however, part of a Form 45 was found. No Form 45 has been found in the Scottish military forts, which are dated down to A.D. 180 at least, so a date later than A.D. 180 is indicated on this evidence.

(ii) The coarse pottery is consistent with that in use at the turn of the second and third centuries (see fig. 15, nos. 7–13, and pp. 164–5).

(iii) No coins were found.

(iv) In the reports of the Silchester Excavation Committee[1] it is recorded that 'a denarius of Septimius Severus was found in Section 11 on the inside of the wall at a depth of 6 feet from the top of the mound'. If this coin was in the wall-trench, as is possible, the wall could not have been built until the reign of Severus.

(v) In the *Victoria County History of Hants*, i, 280, and in the *C.I.L.*, vii, 7, etc., it is recorded that a broken inscription was found in 1732 in grubbing a crabtree on top of the wall west of the north gate. Unfortunately the stone is now lost, and only the correspondence about it remains. This states that it was a freestone fragment, 20 in. long by 18 in. wide, and the inscription read:

IVLIAEAVG	(Iuliae Aug(ustae) matri senatus et
MATRISE	Castror(um) M(arcus) Sabinius Victor ob . . .)
NATVSET	= In honour of Iulia Augusta, Mother
CASTROR	of the Senate and Army, erected by
MSABINVS	M. Sabinius Victor, on account of . . .
VICTOROB	

Iulia Augusta is the Empress Iulia Domna, wife of Septimius Severus, and the inscription must have been set up somewhere between the accession of Severus in A.D. 193 and the death of Iulia Domna about A.D. 217.

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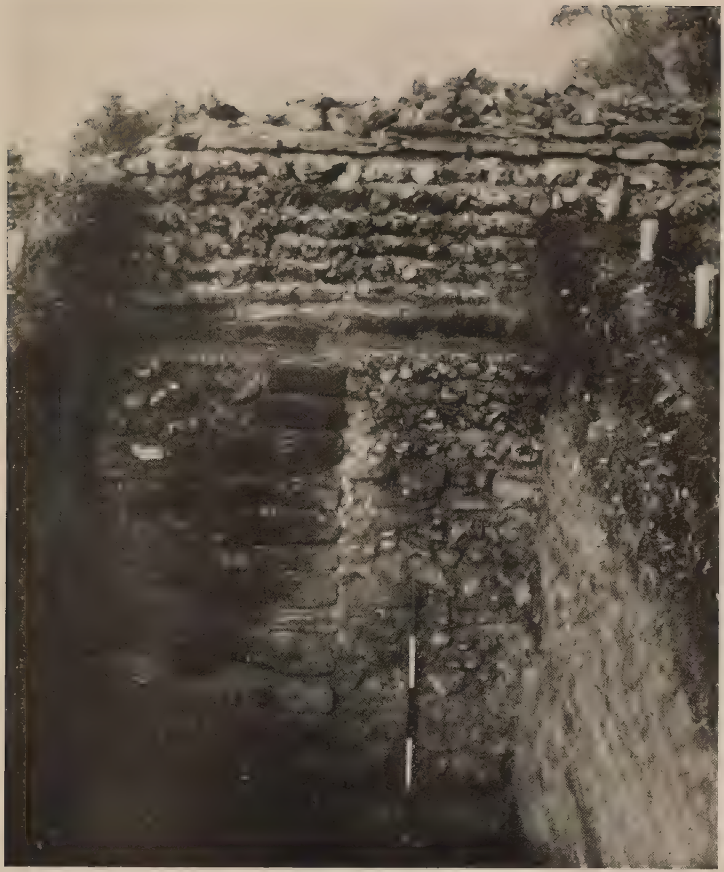
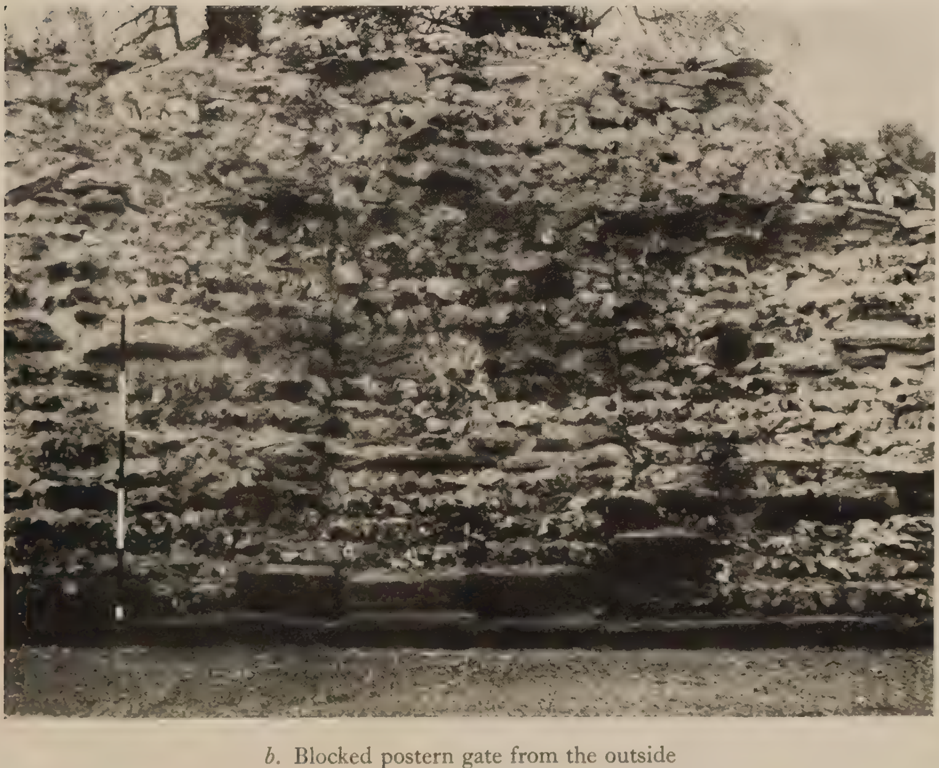
[1] *Archaeologia*, lxii (1910), 325.



a. Site E. Inside view of blocked postern gate



b. Blocked postern gate from the outside

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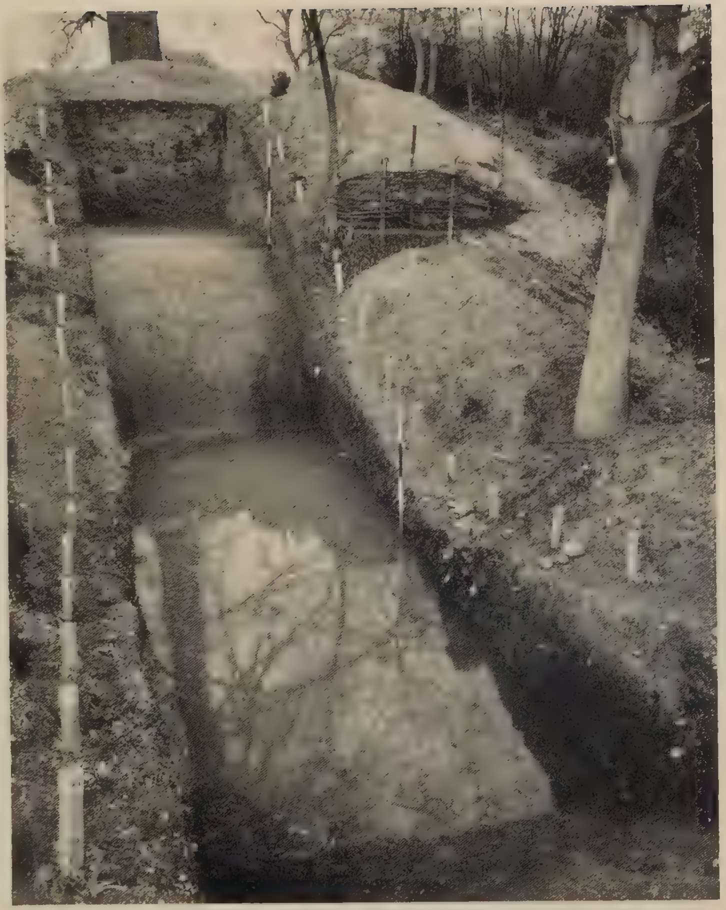
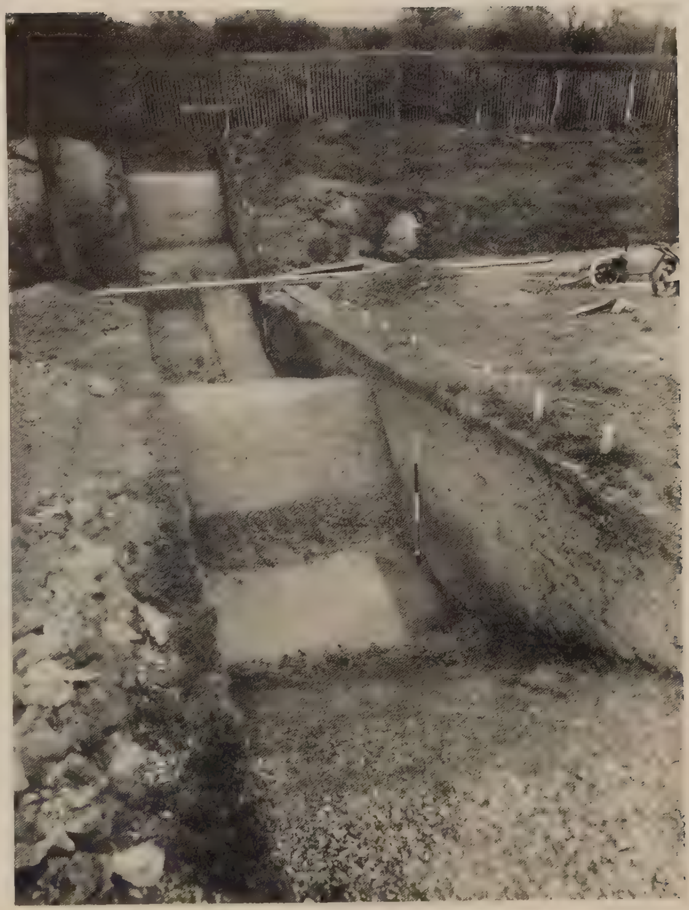


a. Site H. Outer slope and ditch of outer earthwork



b. Site G. V-shaped ditch and wall ditch

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On the ceramic evidence the wall cannot be earlier than the last twenty years of the second century A.D. The numismatic evidence, if its use is permissible, would suggest a later date. The inscription taken alone had no dating value, but its close agreement with the dating arrived at from the pottery makes it of additional interest. At present, therefore, a provisional date of *c.* A.D. 190–210 is suggested for the town wall, with a tendency to stress the later limit.

The Ditches

The ditches belonging to the inner defences were explored during 1939 on Site G (pls. XXX, XXXIV *b*), a trench being cut outside the north wall across them and up to the modern roadway. This trench was planned as nearly opposite Site B as was convenient. On the surface a long berm can be seen sloping down to the fosse, now a stream. Excavation proved what had been suspected during the earlier season, namely, that this berm masked a filled-in ditch. Although hampered by the high water-level, both this filled-in ditch and the outer fosse were excavated down to natural gravel or London Clay and their profiles recovered. That nearer the wall was V-shaped with steep sides, whereas the outer ditch had a shallower saucer-shaped outline. The inner ditch, with the exception of a slight rapid silt, was filled with a sandy clay of uniform consistency which appeared to have been rammed in so that the only colour changes were horizontal and no silt lines occurred. This could only have been achieved in a deliberately filled-in ditch.

The outer ditch showed the usual sagging layers common to all silted-up ditches, and had a marked external counterscarp. The section (pl. XXX) showed that outside the wall its footings had been cut down as far as the earliest occupation-level. This level continued under the footings, but beyond the wall-trench the tails of two layers equivalent to periods II and III inside the wall also persisted. All three layers are cut by the V-shaped ditch, so that on stratification this ditch cut is contemporary with the period of the early bank. No berm-level exists between this ditch and the plinth on the wall, and indeed the space is too narrow for an adequate berm to have existed. The restored contour of the early bank suggests that this ditch was in a position suitable for its outer boundary. From this it seems reasonable to infer that when the later wall was planned the outer part of the earthern bank was cut away and used in filling up this ditch, which was now in a position quite unsuited to that of the new wall. Surplus bank material could also have been used as an infilling for the wall-trench, and indeed both the infilling and the filling of the V-shaped ditch are composed of the same sandy clay as that remaining in the early bank.

The outer ditch with its more usual saucer-shaped profile was then cut leaving an adequate sloping berm between it and the wall. That this ditch was open at the time the walls began to decay was proved by the discovery of flints and bonding stones that had fallen from the wall into the lower levels of its silt, whereas not a single flint or piece of limestone was found in the filling of the V-shaped ditch. On the whole the silt proved completely unproductive; very little pottery and no coins were found, and the dating of these ditches at present rests on observation of their structural features.

Summary

The inner defences of Silchester consist of an Antonine earthen rampart with a V-shaped ditch, later altered during the reign of Severus to a stone wall which replaced the outer half of the earthen rampart, and an outer ditch (the fosse) which was cut when the earlier ditch was deliberately filled in.

Before A.D. 160–70 the only apparent defence was the great outer earthwork which served the town for some 130 years at least. As will be shown later (p. 138) this had no structural repair or alteration, and was probably robbed to provide gravel for street-metalling, so that virtually the early Roman town was peaceful enough and so unmolested that no major work on refortification or strengthening of the town's defences was thought necessary.

Why, during the peaceful Antonine heyday, it should have been thought desirable to build a rampart and ditch forms an intriguing problem. The earthen bank may well have been a rustic attempt to emulate the stone walls of Hadrian-Antonine date already existing in first-class cities such as London and Verulamium, but its most striking feature is that it reduced the urban area by half. Thus we find at Silchester a remarkably early example of that reduction of urban area which became so marked a feature of the Gaulish towns in the late third and fourth centuries, and which we see in effect in the decaying fringe of Verulamium in a great part at least of the same period. Silchester seems to show an intelligent anticipation of a later general civic mortification, a state of affairs that might have been brought about by the fact that it was less dependent on official support and received smaller grants than did some of the larger cities, or perhaps no grants at all.

The replacement of this bank by a stone wall and its new ditch some thirty years later is more understandable. Following the unrest in the north from A.D. 180 onwards, when the Antonine wall was broken, Roman fortifications were overthrown as far south as York and Chester. The strong policy of Septimius Severus restored order, and he and his successors rebuilt, altered, and restored the damaged forts, and put the defences of Britain in a thorough state of repair. Silchester, although not presumably threatened by the unrest, may well have reacted to this stimulus by building an expensive stone wall, the first really efficient defence the town had ever possessed.

That Silchester should have built an expensive defence at this time raises many points for discussion. During the Antonine heyday they could only manage an earthen rampart, and yet, despite the expensive wars of Commodus and Albinus, under the rule of Severus they had sufficient money to build for the first time their most extravagant fortifications, in a locality far removed from the threat of barbarians. Prof. C. F. C. Hawkes suggests that the local authorities at this time would have neither the money nor the inclination to undertake such a work. But he points out that they may well have been ordered by Severus, a military dictator who won his throne by victory in a civil war, who might consider the possible need for defending all towns not only against barbarians but against other aspirants trying to usurp the throne. He may even have given a government grant to Silchester for this purpose to enable it to meet any emergency.

THE STREET-PLAN

By the end of the 1938 season it was realized that the street-plan antedated all the inner defences, and the attribution of an Antonine date to the earliest inner defence meant that the early Roman town must have spread over the entire area enclosed by the great outer earthwork. During 1939 arrangements were made to explore the area outside the town wall between it and the outer earthwork in Rye House meadow, with a view to tracing any extension of the street-plan and to search for any outlying traces of the early Roman occupation, or other earlier phases.

The chessboard street-plan is singularly regular, although the insulae vary in size. It was obviously the work of a surveyor who planned it as a whole, and few obstructions, such as important buildings, lay in the way of his plan, so the majority of buildings were found to flank the streets and were not demolished by them. The plan was centred on the forum and basilica, which were themselves more nearly central to the outer earthwork than to the present town wall.

A series of trenches were cut in Rye House meadow to search for either the streets or any occupation (Site K (fig. 5)). The final plan of 1908[1] showed the streets intersected by the town wall, but there was no indication that they extended beyond this limit. The present excavations showed that the street-plan continued outside the wall and a street running from east to west was traced through to the outer earthwork proving that this was the boundary of the original scheme. The most westerly street running north to south of the 1908 plan was also traced and its intersection with the above east–west street was uncovered. The cross-roads (fig. 5), and the streets where uncovered, were 16 ft. to 16½ ft. wide with a good camber. They were laid on clay and natural gravel, were poorly metalled, and showed very little sign of use, and no repair. The thickness of gravel did not compare with that of the streets inside the town, and it may well be that the whole plan was too ambitious and that the suburbs did not grow up around the streets provided. This view was supported by the lack of the usual ditches which flank the streets, and by there being no trace of occupation found anywhere in the whole area with one small exception. This was along a slight ridge which occurs outside the wall ditch where pottery has been found at intervals. At one point on this ridge a late fourth-century squatter's hut was found (fig. 5). This was a poor affair, with but a few scattered flints to mark its walls, a single layer of occupation inside containing much pottery of late fourth-century date, and a number of very worn coins also of fourth-century date, the latest that could be identified being of the House of Valentinian which continued to A.D. 383. The relation of this hut to the side of the street may have been fortuitous.

The date of the street-plan as a whole can only be suggested. In this area ploughing had removed all surface stratification, and no closely datable material was found in the make-up of the streets. Inside the town (pp. 128–9) it appeared to be contemporary with period III levels of A.D. 120–60 or 170, and was definitely prior to the early bank of A.D. 160–70. As has been shown (see p. 127), it did not exist, at any rate in its later form, when the Baths building in Insula XXXIII was built about the reign of Nero (A.D. 54–68). The most likely period for its construction would be under the

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[1] *Archaeologia*, lxi (1909), facing p. 486.

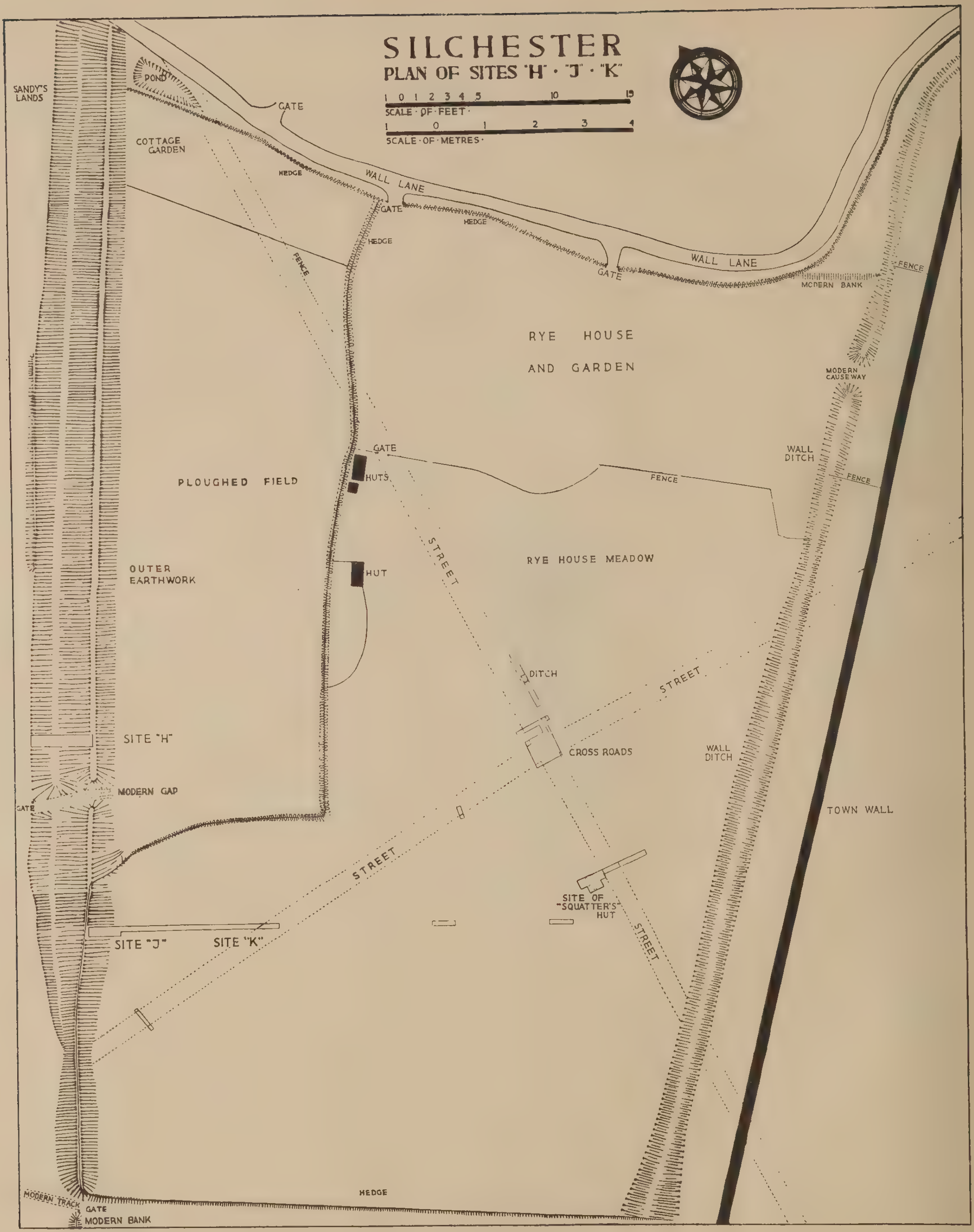
SILCHESTER
PLAN OF SITES "H" · "J" · "K"
1 0 1 2 3 4 5 10 15
SCALE · OF · FEET ·
1 0 1 2 3 4
SCALE · OF · METRES ·
SANDY'S LANDS
POND
GATE
COTTAGE GARDEN
HEDGE
WALL LANE
GATE
HEDGE
HEDGE
FENCE
GATE
WALL LANE
FENCE
MODERN BANK
RYE HOUSE AND GARDEN
MODERN CAUSEWAY
GATE
HUTS
WALL DITCH
FENCE
FENCE
PLOUGHED FIELD
STREET
RYE HOUSE MEADOW
OUTER EARTHWORK
HUT
DITCH
STREET
SITE "H"
CROSS ROADS
WALL DITCH
MODERN GAP
GATE
TOWN WALL
STREET
SITE OF "SQUATTER'S" HUT
SITE "J"
SITE "K"
STREET
HEDGE
MODERN TRACK
GATE
MODERN BANK

FIG. 5

influence of Agricola or his immediate successors, who intensified the 'Romanization' of the country during their term of office. Tacitus[1] tells us that while Agricola was Governor in Britain (A.D. 78–85) he encouraged the provincials to construct temples, fora, and houses, and took action to see that this was carried out, but Agricola was recalled in A.D. 84 or 85 by the Emperor Domitian. The Clay Floor II of Hut C1 (fig. 2), a hut whose final occupation extended into the second decade of the second-century A.D., and which was destroyed when the street was built, contained a coin of the Emperor Domitian which dates the street-plan to *c.* A.D. 90–120 at the earliest. From its relation to the early bank, it is evident that the plan must be earlier than *c.* A.D. 160. As far as our knowledge goes at present, the lower end of the bracket seems to fit in best with a tentative dating of A.D. 90–120 as the most plausible.

THE OUTER EARTHWORK

The great outer earthwork of Calleva consists of a single bank and ditch enclosing about 230 acres. Its line is somewhat obliterated on the east, but it is well defined on the north-west, and exists at its highest and best to the south and west in Rampier's Copse. Here it takes a curious bend. Previous excavations have been carried out on this earthwork, especially those of Colonel Karslake in Rampier's Copse,[2] in which he found Roman burials on both the inner and outer faces of the bank; and those of Mr. Challoner-Smith. Lack of datable material from the bank itself, and the inevitable difficulty of draining the ditch to the bottom because of the prevalent high-water level, prevented the excavators from reaching a definite conclusion. These difficulties still persist, but it has been possible to add something to our previous knowledge of this great defence. An eight-foot cutting was made on Site H (fig. 5, and pls. XXXIV *a*, XXXV *b*, XXXVIII). Here the bank is only 6½ ft. high, and it was found to be of very simple construction. A small primary mound of dirty gravel formed a core on the old gravel surface, and was capped with layers of clean gravel. The rest of the bank had been built up by tips of mixed gravel and peaty turf which had probably been basketed up from the ditch, or thrown up from scoops or quarries inside the bank. Traces of these quarries still exist in areas which have not been cultivated. On Site H the primary mound finished at a straight line just before the inner lip of the ditch (pls. XXXV *b* and XXXVIII), and originally a small dry-stone wall must have revetted it along this line. This has been found in position in some of the earlier sections, but in others, as in this case, the stones are now in the silt of the ditch. No traces of timbers were found. Only part of the ditch could be excavated owing to the flooded condition of the ground as in this area it is cut down into London Clay. In places along this north-west stretch a slight counterscarp exists.

In this section not one sherd of pottery was found in the bank itself, and from the late layers of the ditch silt only a few water-worn sherds of early Roman date were recovered. These cannot be used to date the bank, so, except for confirmation of the simple structure previously described, this section produced no new evidence for determining the foundation date of this defence. The bank must have been made at one period, out of virgin soil, by newcomers to the area, and had no major repair or alteration. It is interrupted opposite the gates of the walled town, and may have been robbed at these points for gravel to make up the streets inside the town. Its internal slope was examined in this area on Site J (fig. 5 and pls. XXXV*a*, XXXVIII), in Rye House meadow, and this trench was extended as part of Site K to explore the area between the bank and the town wall. In this section the core of the bank was of turf or peat, but traces of tip-lines, comparable with those on Site H, also existed. Again nothing was found in the primary build of the bank, but in this area the bank is ploughed down, and in the spill over its tail there was found the rim of a coarse dish copying a late imported Belgic plate (fig. 16, 17 and p. 166). This is the only sherd in this area that might be derived from the bank. A small pocket of occupation material lay on the tail of the bank which yielded a little pottery of Claudian date. In the slip of the bank there was found also a bronze buckle (fig. 9, 6), and at hand another buckle, much damaged, but which on cleaning showed remains of a textile material (pl. XXXVI*a* and *b*, and p. 147) still embedded in the bronze.

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[1] *Agricola*, xxi, 68–73.

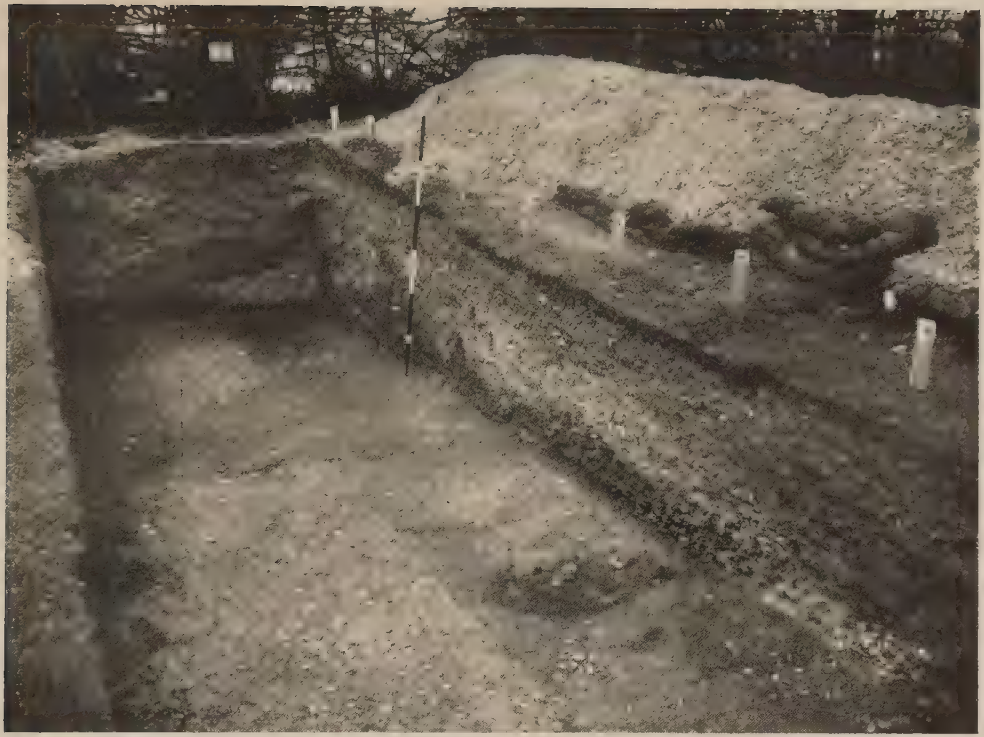
[2] *Archaeologia*, lxii (1910), 330.

The trench from the inner slope of the bank was continued across the meadow towards the wall for some 200 ft., and showed no occupation levels. In fact, wherever the meadow was trenched no signs of huts, houses, or occupation could be found, excepting along the slight ridge west of the wall ditch, where a late fourth-century squatter's hut was discovered (fig. 5). This was a squalid affair. Wherever test trenches were made in Rye House meadow in tracing the street-plan, or otherwise, no other foundations or huts were found, and the occupation in this area must have been scanty, but may of course exist.

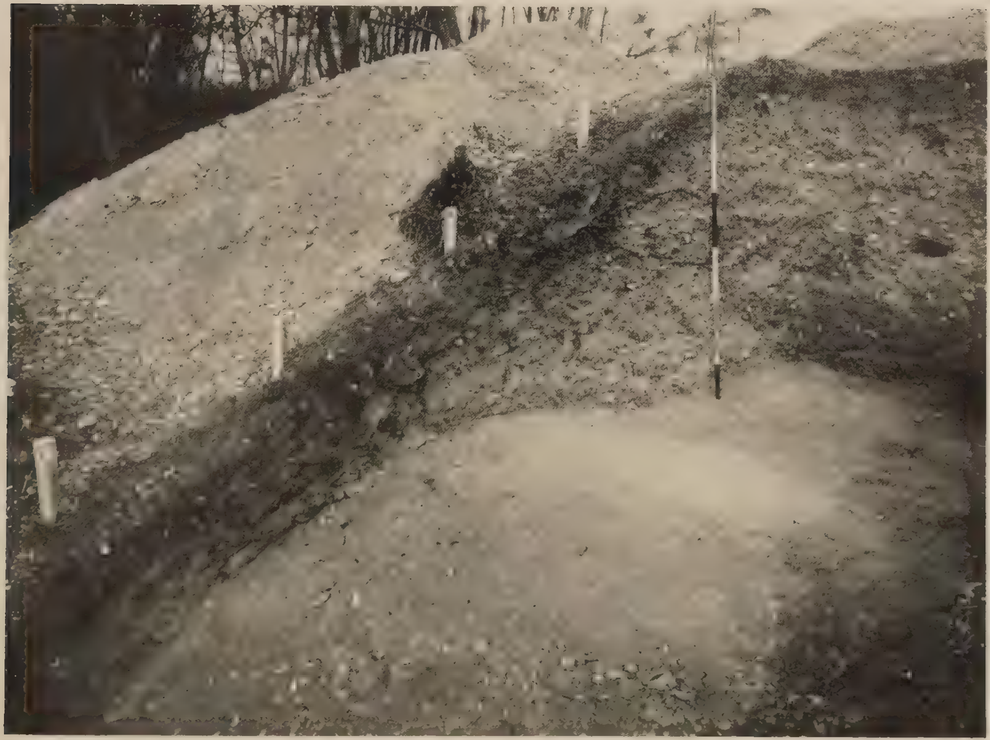
This area thus failed to produce any evidence which bore directly on the foundation date of the outer earthwork, and arrangements were therefore made to try once more to the south in Rampier's Copse. Here the earthwork is at its best and stands some 18 ft. high with a deep ditch and a marked counterscarp. Not only is the bank higher at this point than elsewhere, but there is no record that the Copse has ever been under cultivation, and it is unique in being the one part of Silchester undisturbed since Roman times.

In this area Colonel Karslake has recovered pottery from hut circles, and from the silt of the ditch, and both his sections and those of Mr. Challoner-Smith have been preserved. These show no major variation in structure from that of Site H, so it may be assumed that the whole earthwork is of one build and plan. This meant that the chief hope of obtaining dating evidence was still to find occupation inside the earthwork that had a definite relationship to the bank.

Site L was chosen as a possible area (fig. 6). The wooded and marshy copse presents a series of mounds and hollows. Trial soundings through one mound showed that it was of natural gravel, and in one of the least marshy hollows only leaf-mould was found over natural gravel. The main cut was made into the tail of the bank, and here at last some occupation material was found. In this area a small hearth pit had been cut into the tail of the earthwork (pl. XXXVIII). It contained charcoal, a piece of hard tile, a few fragments of the hand-made native ware, and part of a rim of a butt-beaker, apparently of local manufacture. However, the evidence obtained from this pit can-



a. Site J. Inner slope of the Outer Earthwork



b. Site H. Section of the bank

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not be used in determining the building date of the earthwork, as the pit must have been cut after the bank was built, even if the interval was short. But underlying this pit, and over an area extending beyond it, a scoop or hollow occurred which contained pottery. This occupation displaced the original turf, was contemporary with it, and was sealed in part by the tail of the bank. It was probably a temporary bivouac of the builders of the earthwork. No small finds, brick, or red-glazed wares were found. The pottery (fig. 16) though having a most pronounced native and Belgic *facies* did contain the base of a Claudian jug (fig. 16, 13) in association with the butt-beakers. The pottery from the 'old turf' in the area was small in quantity and was associated

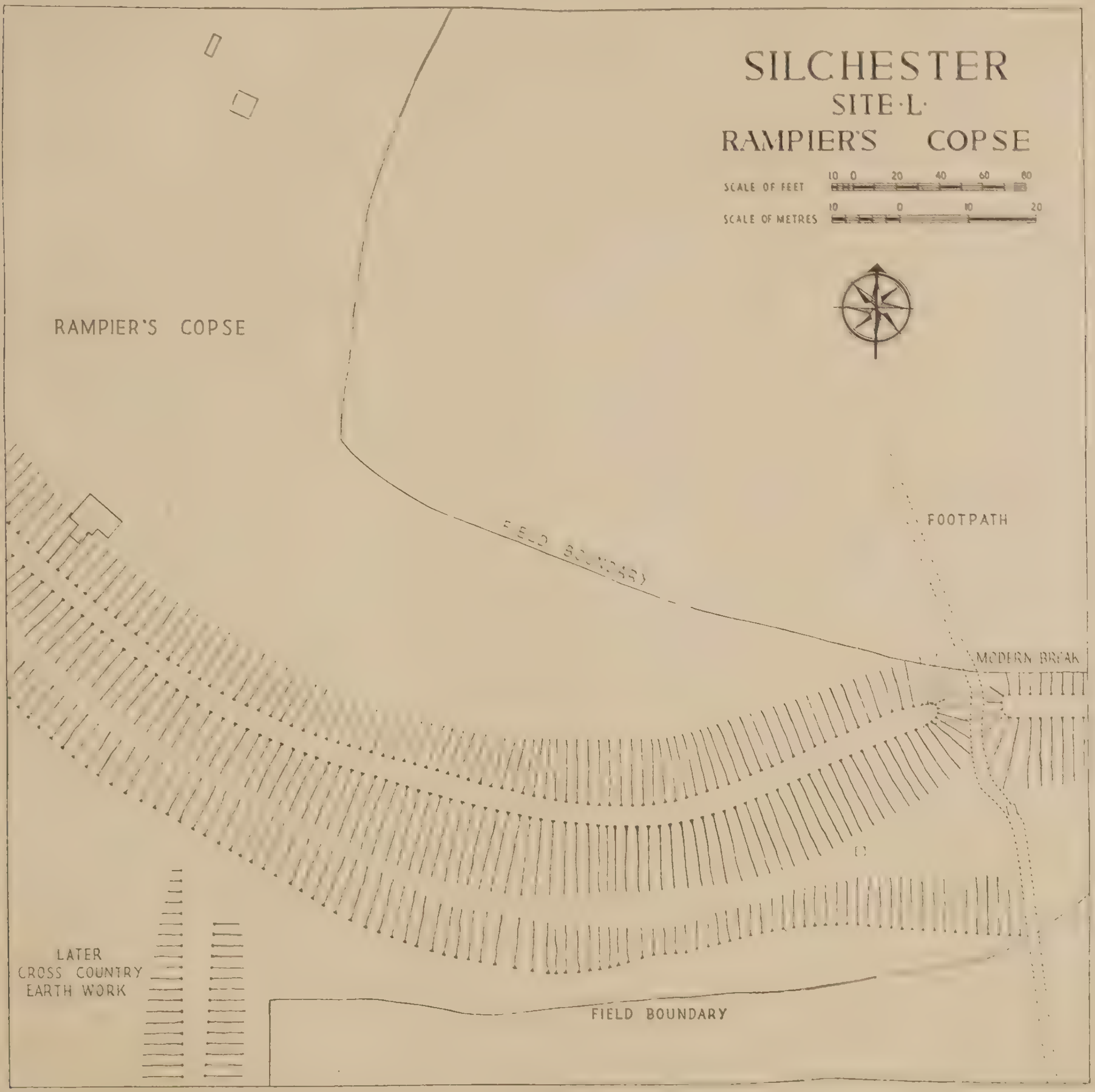
SILCHESTER
SITE·L·
RAMPIER'S COPSE
SCALE OF FEET 10 0 20 40 60 80
SCALE OF METRES 10 0 10 20
RAMPIER'S COPSE
FIELD BOUNDARY
FOOTPATH
MODERN BREAK
LATER CROSS COUNTRY EARTH WORK
FIELD BOUNDARY

FIG. 6

with two sherds of soft red-glazed ware that could not be dated, and with much hard red brick. The wash of the bank over these levels contained a little pottery and much red brick, and in addition a rim of soft red-glazed ware.

The tail layers of the bank contained no pottery, but many pieces of well-baked red Roman brick were found. This brick is in position in the primary build of the bank. No evidence has yet been produced to show that hard-baked Roman brick, as distinct from a sort of ceramic shortbread, was made in this country before the Claudian invasion, and at Colchester it only appears when they began to build the Colonia in A.D. 49.[1] The evidence of this brick, taken with that of the pottery, even though this is so small in amount, precludes a pre-Claudian date for the foundation of the outer earthwork.

A complete survey of this earthwork was not attempted. The entrances are still largely unexplored, but Colonel Karslake's work suggests that the road through the south-west entrance, which is contemporary with the earthwork, does not coincide with the line of the Roman road which passes through the south-west gateway of the walled town. A trench into the pathway through the gap to the east of the Rampier's Copse bend proved that the gap is modern, as the ditch outside is continuous at this point, and an early southern entrance at this place is disproved.

The Date of the Earthwork

Such evidence as could be found seems to show that the outer earthwork was not constructed until the Claudian period at the earliest. The earthwork itself is *built* in a native tradition rather than a Roman, and it would seem that it must have been erected by a collection of native peoples under the direct stimulus of Roman leadership. The latest date for its construction is not so clear. Historically it is more likely that it was built after the Boudiccan rebellion of A.D. 61, when it was discovered that undefended cities were not safe, rather than in the Claudian/Neronic period of A.D. 45–61. The pottery and other evidence found so far is quite insufficient to disprove a post-Boudiccan date, and a date soon after A.D. 61, although it cannot be very much later, as the foundation date of the bank as a rampart of a 'First Roman City' seems most likely. This does not alter the fact that the Period I levels under the Inner Defences do seem to be definitely pre-Boudiccan, but at present it seems safer to suggest a date as definitely post A.D. 43, and most probably A.D. 61–5, as that at which the earthwork was built.

BELGIC (PRE-ROMAN) SILCHESTER

Calleva Atrebatum and Silchester must be regarded as one and the same place.[2] Traditionally it was founded by Commius the Atrebatic prince who fled to this country *c.* 50 B.C. His life-history and the archaeological evidence of his reign in this country and those of his dynasty have been summarized in 'The Belgae of Gaul and Britain'.[3] During the present excavations no stratified level was found that could be dated as earlier than Claudian, so that a gap of 100 years has still been left unbridged between the historical records and the structural evidence. The whole question of a Belgic or pre-Roman Silchester is still an open one. The fact that the limited ground space uncovered during the excavations, which aimed at solving three problems only, showed no pre-Claudian occupation, does not preclude such an occupation in the vicinity, or indeed in the area of Silchester itself. The patchy character of Belgic settlement has been emphasized repeatedly, both by Dr. Wheeler at Verulamium, and by Prof. Hawkes at Colchester. On this latter site, the known areas of Belgic settlement are surprisingly small, and show how easily they could be missed without widespread excavation. That there are no obvious earthworks above ground that could be attributed to the Belgic town cannot be taken as an indication that none existed. With so much later occupation they could have been obliterated, and the complete way in which the V-shaped ditch of the early bank is masked should serve as an object lesson before making any inferences about such fortifications.

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[1] From information kindly supplied by Prof. C. F. C. Hawkes.

[2] *V.C.H. Hants and the Isle of Wight*, i, 271 ff.

[3] 'The Belgae of Gaul and Britain', *Arch. Journ.* lxxxvii (1931), 291 ff.

The earlier excavations do not record any stratified levels that can be described as purely Belgic, so that the evidence for a pre-Claudian occupation of the area is still inferential. Nevertheless many points still seem to indicate that a Belgic settlement did exist on this site. Mr. J. N. L. Myres suggests that the laying-out of a town of 230 acres on a virgin site that is not obviously of importance is unintelligible unless it was the successor of a pre-existing settlement, situated on a model centre of the road system. The Arretine pottery and amount of imported Belgic ware recovered during the earlier excavations suggests a pre-conquest occupation of the site, although the significance of Arretine is not yet a sufficiently determinate factor to be regarded as decisive.

But the most striking evidence is still that of the coins. In a paper by Mr. Derek Allen,[1] he contended that Brooke was wrong in saying that the coins of Eppillus, son of Commius, inscribed EPPI/CALLEV and EPP/REX CALLE could not mean that Eppillus ruled at Calleva Atrebatum. On the contrary, all these coins so inscribed come from the area common to the coins of Commius and his sons, that is West Sussex to the Middle Thames, and one of the silver ones inscribed (EPP)/REX CALLE comes from Wallingford (Ashmole, *Antiquities of Berkshire*, 1786, p. 29). He shows that in these coins Eppillus was following directly in the numismatic tradition set by his brother Tincommius, who also ruled in these regions, adding for the first time in Britain the title of REX. Eppillus was succeeded by his brother Verica in the same realm. Eppillus, he believed, had a short but quite definite reign (*c.* A.D. 1–10 or 5–15) with his capital at Calleva. Whether or no the settlement was founded by Commius, or even by Tincommius which is more likely, is still uncertain, but an occupation of the site during the first half of the first-century A.D. is a possibility that cannot be dismissed lightly if at all. Further excavation may succeed some day in producing internal evidence of the actual site of a pre-conquest settlement, but at present we are still dependent on this external knowledge.

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[1] *Archaeologia* (1944), xc, 7–8.

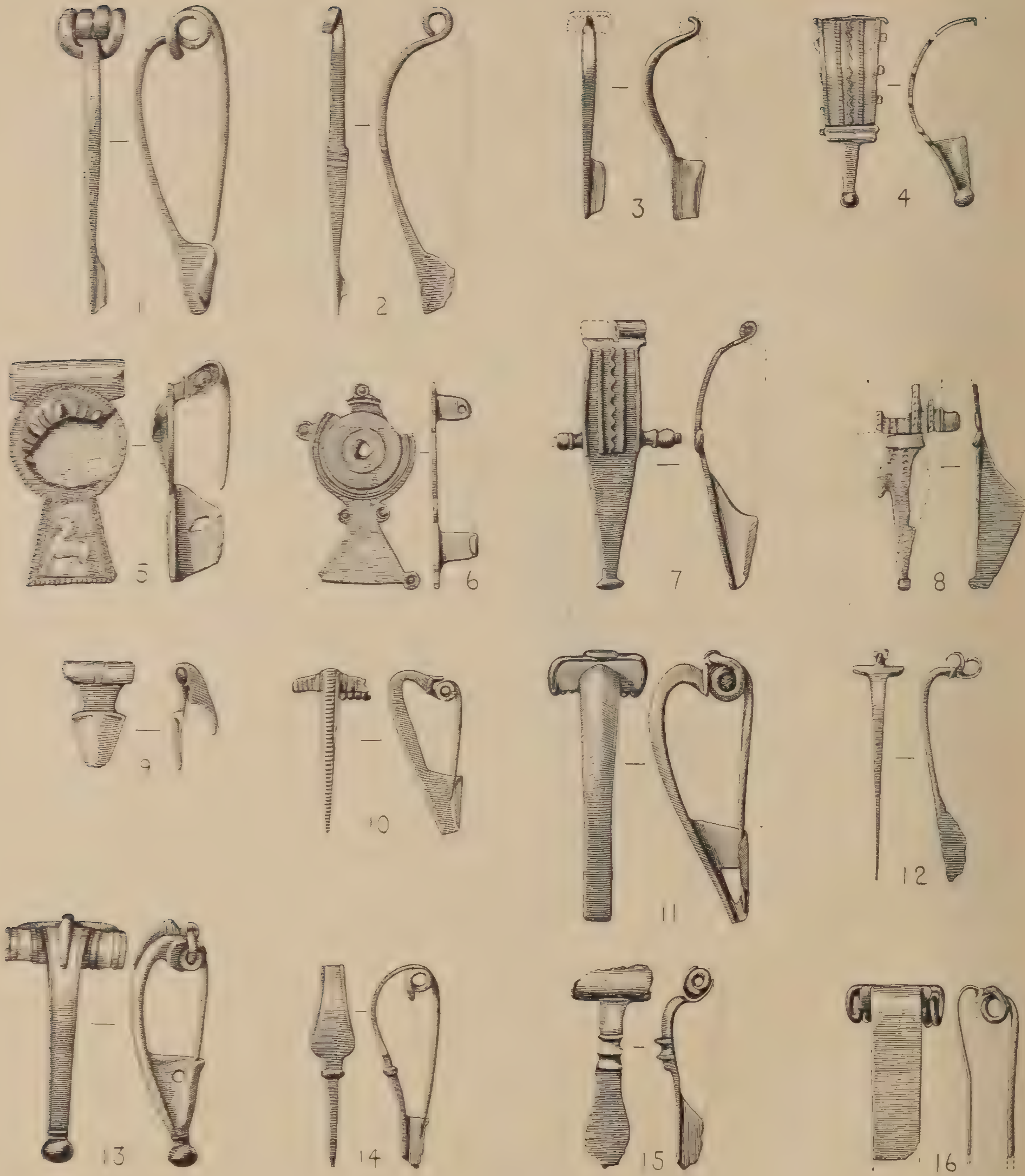
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FIG. 7. Bronze brooches of the first century A.D. $(\frac{1}{1})$

SUMMARY OF THE DATES

The Inner Defences

Period I. The Earliest Occupation, *c.* A.D. 45–65.
Period II. Phase I, *c.* A.D. 65–100.
Phase II, *c.* A.D. 100–120.
Period III. The Early Occupation, *c.* A.D. 120–160/170.
Period IV. The Early Bank, *c.* A.D. 160/170.
Period V. The Wall and Late Bank, *c.* A.D. 190–210.

The Street Plan. c. A.D. 90–120/130.

The Outer Earthwork. Certainly post A.D. 43, probably post A.D. 61, but not later than *c.* A.D. 65.

BUILDING STONES

Report by R. V. MELVILLE, ESQ., of the Geological Survey

SPECIMENS of the stones used for the bonding courses and the faced 'ironstone' stonework of the gateways of the north wall were submitted to Mr. R. V. Melville, who very kindly identified them.

The slabs used for the bonding courses are probably all of great Oolite or Forest Marble. They could have been obtained from anywhere along the Jurassic Zone, but may possibly have come from the nearest sources on the Roman Road between Silchester and Bath, e.g. the quarries at Chippenham. Some of the stone comes from the Carston Beds, Lower Cornbrash, near Malmesbury. This could have been transported along the road from Cirencester.

The 'ironstone' comes from the Bagshot Beds of the Silchester neighbourhood. It is a Pebble-bed (coarse sandstone) with ferruginous cement. It is not all suitable for building stone and is not very plentiful.

BROOCHES

Bronze Brooches of the First Century A.D.

Fig. 7

1. Bronze brooch of the so-called 'poor-man's' type. These brooches are characteristic of the second half of the first century A.D. Cf. *Verulamium*, p. 204, fig. 43, 1 and 2. From a hearth pit on Site C, *c.* A.D. 65–100.

2. Bronze brooch of the same type as the last, but with a vestigial transverse decoration on the bow, the last remains of the La Tène II collar. From Site G, level 3, the continuation outside the wall of the early occupation level, *c.* A.D. 120–160/170.

3. Bronze brooch of the same type as No. 1. From Pit C2, level 3, *c.* A.D. 100–20.

4. Bronze 'winged bow' brooch (Collingwood, *Archaeology of Roman Britain*, type P) lacking the hinge and pin. The bow is flattened and ribbed, and carries five pairs of projections along its edge, and the foot is knobbed. Cf. 'North Ferriby', *Antiq. Journ.* xviii (1938), 277, fig. 6*a*. These brooches are pre-Claudian in date, and the associated pottery at North Ferriby is dated as pre-conquest. From Site E, in the debris outside Hut E1, *c.* A.D. 65–120.

5. Hinged bronze rosette or thistle brooch. The rosette has the remains of a raised disc decorated with repoussé work, and the fan tail has a similarly executed animal, possibly a lion. Both are finished with beading. The disc is incorporated as part of the casting, and although this type occurs along with those with independent discs during the first half of the first century A.D., it tends to supersede them after the middle of the century. Cf. *London in Roman Times*, London Museum Catalogues, no. 3, p. 90, 5. From Pit C3, level 1, with pottery mostly of mid-first-century date, but which also included early Flavian material.

6. Tinned bronze brooch of the same type as the last. The hinge is below the disc; the disc has a circular grooving, and in the centre had originally a stud. Both the disc and fan tail carry small projections decorated with incised circles. This brooch appears to be a devolved type and possibly belonged to the end of the series. From the same level as the last it could have been in use as late as the early Flavian period, as it was associated with the Samian base stamped OF IVCVN dated as Claudius-Vespasian.

7. Hinged bronze brooch of the winged 'Hod Hill' type. For a discussion of this form see *Richborough*, iii, 76, no. 6; and *Verulamium*, p. 204, fig. 43, 7. In this country these brooches are usually Claudian in date, and although found in levels as late as Vespasian, these later examples may well be of earlier manufacture. From Pit C2, level 3, *c.* A.D. 100–20.

8. Bronze 'Hod Hill' brooch. Part of the bow, and the foot and catchplate only remain. Cf. no. 7. From the early occupation level of Site A.

9. Incomplete bronze brooch with hinged pin. It is typologically similar to the last two, but of a poorer variety. Cf. *Richborough*, iii, 77 and pl. IX, 8; and *Verulamium*, p. 206, 9. From the same level as nos. 3 and 7.

10. Bronze brooch with coiled spring. The bow has transverse striations and is convex on the upper side and flat underneath. The cover-spring is fluted and has a small hook cast in one with it. Cf. Ritterling, *Hofheim*, pl. VIII, no. 84. From the same level as nos. 5 and 6.

11. Bronze brooch with coiled spring the cord of which is held by a hook. The base of the angular bow is expanded into a spring-cover and the catchplate is pierced. Cf. *Verulamium*, p. 207, fig. 44, 26, which is late first or early second century; and *Lydney*, p. 76, fig. 12, no. 13, a Flavian example. From Pit C3, level 1, with nos. 5, 6, and 10 and in association with early Flavian pottery.

12. Bronze brooch with a single bow, plain catchplate, coiled spring, and a hook welded in one with the bow. Cf. no. 11. From Site K, in the late fourth-century occupation on the floor of the 'squatter's' hut.

13. Heavy bronze brooch with a coiled spring encased in a fluted spring-cover, an arched bow with a keel and hook at the spring end, a knobbed foot, and a pierced catchplate. This is essentially a British type, prevalent in the south during the late first or early second century. Cf. Collingwood, *Archaeology of Roman Britain*, Group H, p. 247, and fig. 60, 15. From Site G, level 3, the continuation outside the wall of the early occupation level.

14. Bronze brooch with spring pin. The bow is expanded above a transverse moulding and has a long slender foot with a solid catchplate. The end of the foot is missing. This brooch is an imported Gaulish type. From Pit C3, level 4.

15. Bronze brooch with a spring coil encased in a simple spring-cover, and a cross-ribbed bow. The pin and part of the catchplate are missing. From Site K, lying on the street.

16. Bronze brooch with a spring-pin and a flat strip bow expanded at the base to form a spring-cover. From the same level as nos. 5, 6, 10, and 11.

Bronze Brooches of the Second Century A.D.

Fig. 8

1. Bronze trumpet-headed brooch with a coiled spring-pin, wire head loop, and with an acanthus moulding on the bow which is not carried all round the waist. This brooch falls typologically between Collingwood's groups R (ii) and R (iv) (*Archaeology of Roman Britain*, pp. 253–4), as the acanthus moulding is not complete as in the R (ii) group but it lacks the hinge and cast loop usually present in the R (iv) group. Essentially a British type, it is a south-country imitation of the finer north-country examples which flourish from A.D. 100 to 140 (cf. *London in Roman Times*, London Museum Catalogue No. 3, p. 96, fig. 28, nos. 27–8). The lower date of the southern copies is indeterminate (cf. *Lydney*, p. 77, no. 18). The closest parallel in the group at Newstead (Curle, *Newstead*, pl. LXXXV, fig. 8) is one found in the ditch of the early fort dated to the end of the first century A.D. From Site C, in the occupation level contemporary with the last

occupation of Hut C1, its associated pottery is early second century in date, and was accumulated after the loss of the coin of Domitian of A.D. 86/87 in the earlier floor.

2. Bronze trumpet-headed brooch of the same type as the last, but of later development, conforming to Collingwood's group R (iii). This brooch has a hinge and cast head loop, and the acanthus moulding is reduced to a decorative feature. The type was current in southern and central England before the middle of the second century A.D. From the early occupation level of Site C, *c.* A.D. 120–160/170.

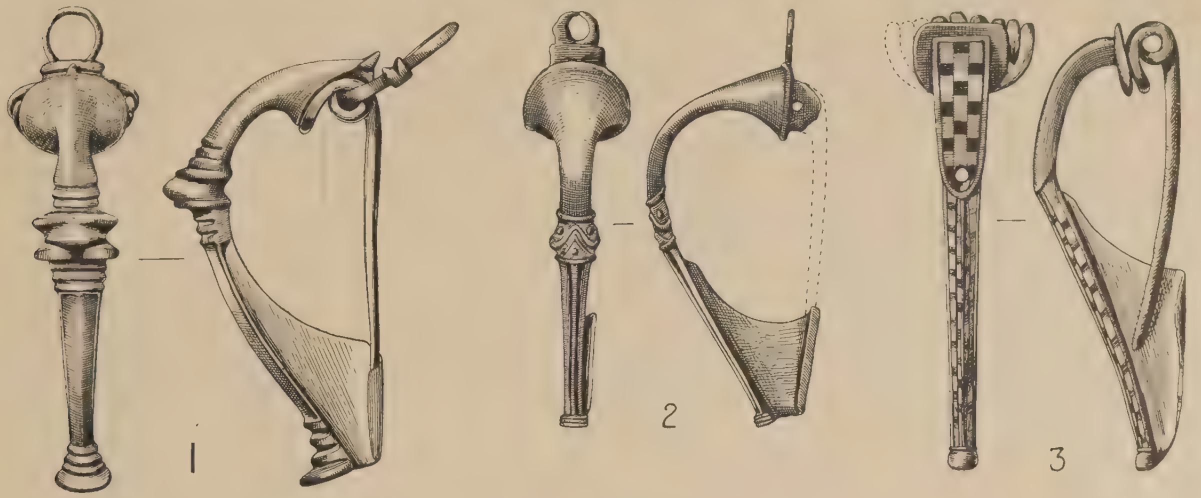

FIG. 8. Bronze brooches of the second century A.D. ($\frac{1}{1}$)

3. Bronze brooch with a coiled spring and solid catchplate. The bow has a spring-cover, and is decorated with a black and white enamel inlay. The centre of the bow is pierced for a stud. An early second century type. From Pit C2, level 1, *c.* A.D. 100–20.

BRONZE OBJECTS

Fig. 9

1. Bronze pedestal base with three knobbed feet. Originally it carried a bronze statuette. From Site B, in the Early Bank, *c.* A.D. 160–70.
2. Bronze footstand of the common Roman type. Cf. *Lydney*, p. 86, fig. 20, 102. From Site F, unstratified.
3. Annular bronze bracelet with beaded decoration. Cf. *Richborough*, ii, pl. XXII, 62. From Site K, in the street.
4. Bronze bracelet with expanded terminals, and a decoration of transverse striations. From Site K, in the occupation level on the floor of the late fourth-century 'squatter's' hut.
5. Bronze finger ring with concave shoulders and circular bezel. The setting is missing. Cf. *Lydney*, p. 82, fig. 16, 51, ascribed to the third century A.D. From Site E, in the Late Bank, *c.* A.D. 190–210.
6. Bronze buckle. Found in close association with pieces of bronze and the scrap of textile. From Site J, in the slip over the tail of the outer bank.
7. Bronze ornament of trefoil shape. From Site C, in the Early Bank, *c.* A.D. 160–70.
8. Decorated bronze ornament. From Site K, unstratified.
9. Bronze staple. From Site K, in the street.

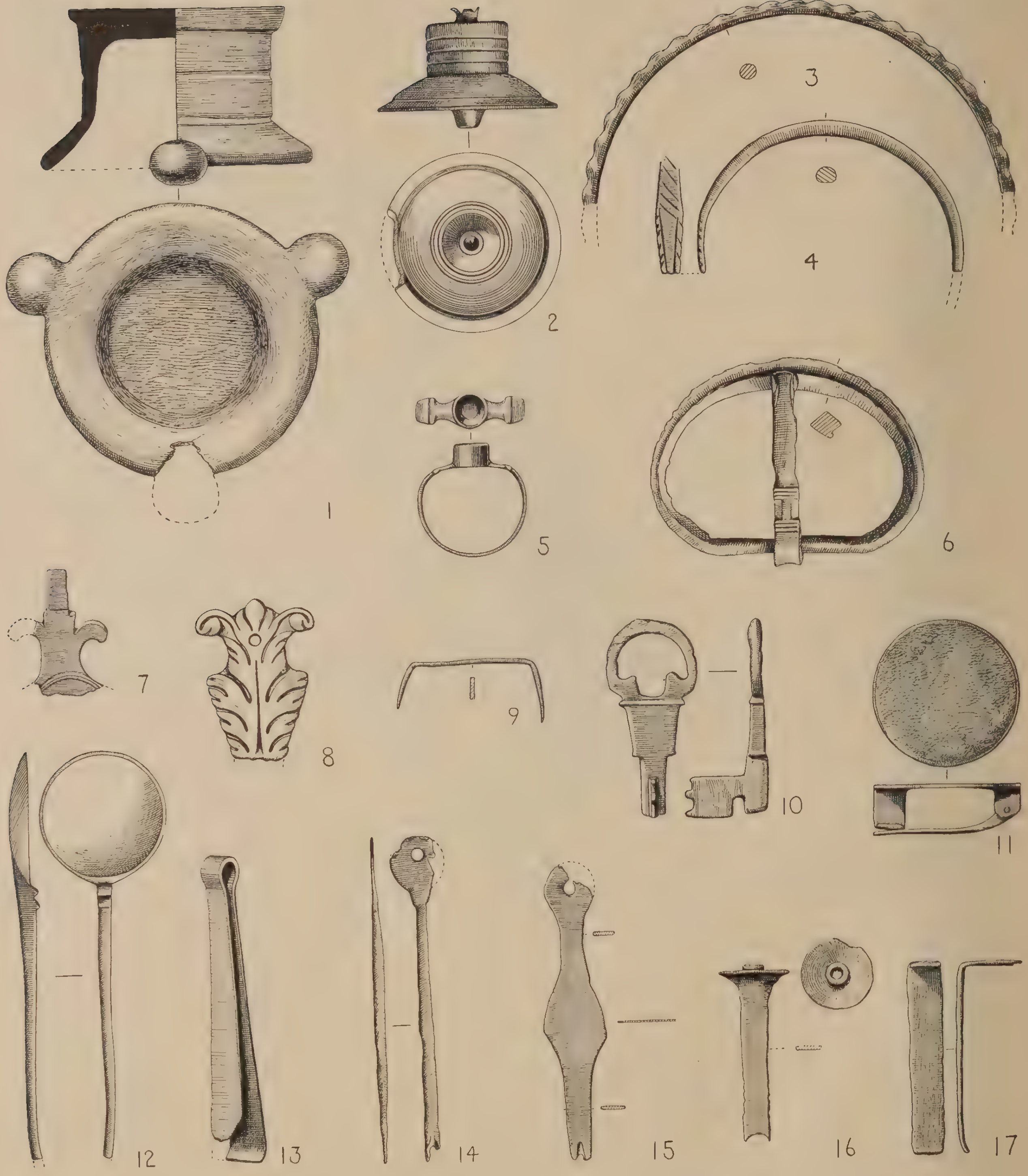
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FIG. 9. Bronze objects. ($\frac{1}{1}$)

10. Bronze key. The shaft is hollow, and the plane of the wards is at right angles to it. Cf. *Richborough*, iii, p. 83, pl. XIV, 51. From Pit C2, level 3, in association with early second-century pottery.

11. Bronze disc brooch. No decoration remains. From Site B, unstratified.

12. Bronze spoon with circular bowl. Cf. *London in Roman Times*, London Museum Catalogue No. 3, p. 106, pl. XLV, 6. From the Wall Trench of Site C.

13. Bronze tweezers of normal Roman type. From Site C, in the late occupation level over the street.

14 and 15. Bronze nail cleaners. From Pit C2, level 5, and Pit C3, level 4, respectively.

16 and 17. Bronze rivet and staple. From Site C in the occupation on the clay floor II of Hut C1.

IRON OBJECTS

A number of identifiable iron objects were found. These came from the filling of the V-shaped ditch on Site G (a staple); from the wall trench on Sites C and E (? a chisel, a ring, and ? a key); from the late bank on Sites C and E (a flat band, a staple, a ring, a ferrule, and a hook); from the occupation level of the squatter's hut on Site K (a hook, a sandal toe-cap, and cleats); and from the unstratified soil on Site F (a knife).

MISCELLANEOUS OBJECTS

Plate XXXVI

(*a*, *b*) Remains of a bronze buckle to which fragments of a textile still adhere. This textile is of a white flax or linen thread made with a two-strand weave, and was protected by the decaying bronze. It was found in Site J, in the tail of the early Bank (Outer Earthwork), and may be dated to mid-first century or perhaps A.D. 61–5.

(*c*) Baked clay antefix. These finial ornaments of the 'imbrices' which covered the tile-joints of the roof were in use on wooden buildings of early date in Italy and Greece (Lanuvium, *Archaeologia*, liii, pl. VII, facing p. 152). The Silchester example may portray Mercury, and was probably made from a local mould as three other identical examples have already been found (*Archaeologia*, liii, 561, illustrates one from Insula IV near the Forum. All three and a restored example are in the Reading Museum). From the occupation on the clay floor II of Hut C1, with material of early second-century date.

(*d*) White pipe-clay figurine of Venus. These figures were made in the Rhine Valley in the second century A.D. Cf. *Verulamium*, pl. LXI, 3, and p. 202. From Site B in the mound of disturbed earth.

COINS

Report by D. F. ALLEN, ESQ.

1. Cunobelin. Æ; Evans, xii, 2. — *c.* A.D. 25 to 50. From Pit A1.
Obv. Helmeted head right; [CVNO]BELI[NVS]
Rev. Boar right; [TASCIIOVANII F]

2. Claudius. As; native imitation of Claudius; B.M.C.[1] 150; M. and S.[2] 66. — After A.D. 41. From Site A, early occupation level.
Obv. Head of Claudius left; [ ]
Rev. Minerva right holding javelin; SC

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[1] B.M.C. = British Museum Catalogue, *Imperial Coins.*

[2] M. and S. = Mattingly and Sydenham, *Royal Imperial Coinage.*

3. Domitian. As; B.M.C. 389 or 402; M. and S. 335 or 354*a*.
Obv. Head right; [IMP CAES] DOMIT AVG GERM
COS XII [? CENS PER PP (XII or XIII)]
Rev. Moneta standing left; MONETA AVGVSTI SC
A.D. 86 or 87. From Site C, in clay floor 1 of Hut C1.

4. Domitian. As; B.M.C. 402; M. and S. 354*a*.
Obv. Head right; IMP CAES DOMIT [AVG G]ERM
[COS]XIII CENS PER PP
Rev. Moneta standing left; MONETA AVGVSTI SC
A.D. 87. From Site E, in the debris outside Hut E1.

5. Hadrian. As; B.M.C. 1348; M. and S. 678.
Obv. Head right; [ ]
Rev. Salus standing left by altar; SALVS AVGVSTI SC
A.D. 118 to 122. From Site A, in the early bank.

6. Antoninus Pius. As; M. and S. 934.
Obv. Head right; [ANTONINVS AVG] PIVS PP TRP XVIII
Rev. Britannia seated left; [BRITANNIA COS III SC]
A.D. 154 to 155. From Site C, in the early bank.

7. Geta. Denarius; M. and S. 18.
Obv. Bust right; P SEPT GETA CAES PONT
Rev. Emperor and trophy; PRINC IVVENTVTIS
A.D. 200 to 202. From Site F, unstratified.

8. Claudius Gothicus. Antoninianus; M. and S. 36.
Obv. Head right; IMP CLAVDIVS [AVG]
Rev. Fides left holding standards; FIDES EXERCI
A.D. 268 to 270. From Site F, unstratified.

9. Claudius Gothicus. Antoninianus; commemorative issue: M. and S. 265.
Obv. Head right; DIVO CLAVDIO
Rev. Eagle; CONSECRATIO
After A.D. 270. From Site C, unstratified.

10. Constantine I. Æ; Cohen[1] 21.
Obv. Head left; CONSTANTINOPOLIS
Rev. Victory with foot on prow; [ ]
A.D. 327 to 337. From Site F, unstratified.

11. Valens. Æ; Cohen 47.
Obv. Head right; D N VALENS P F AVG
Rev. Victory left; SECVRITAS REIPVBLICAE [ ]
A.D. 364 to 378. From Site F, unstratified.

12. Halved Sestertius; illegible.
1st to 2nd century A.D. From Site A, in the early bank.

13. Halved As; illegible.
1st to 2nd century A.D. From Site B, unstratified.

(The above two coins appear to have been halved intentionally in antiquity.)

During the 1939 season, with two exceptions, the only coins found were in the occupation level of the squatter's hut on Site K. The exceptions were:

1. A Queen Victoria ½*d.* found in the sub-humus over the cross-roads on Site K.
2. A completely illegible coin from the humus of the ditch on Site H.

In the occupation level of the squatter's hut, 22 very worn coins, and 4 fragments of coins were found. Fifteen of these were illegible, and the remaining 10 were:

1. Constans. Æ.
Obv. Head right; [CON]STA | NS P [F AVG]
Rev. Emperor spearing fallen horseman; [FEL TEMP REPARATIO]
A.D. 348 to 350.

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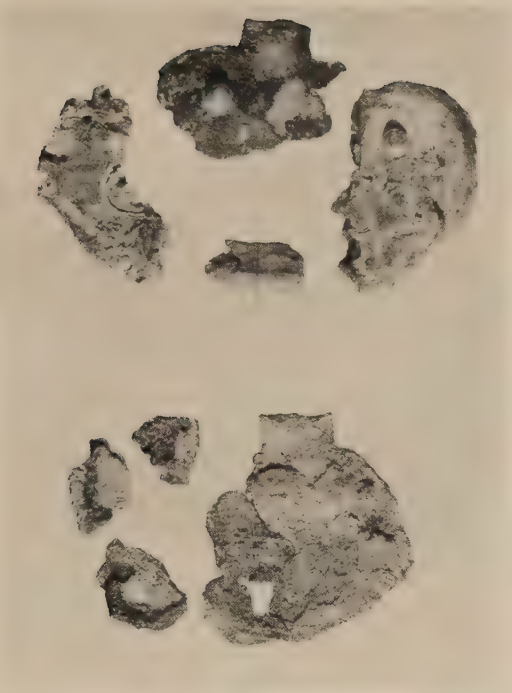
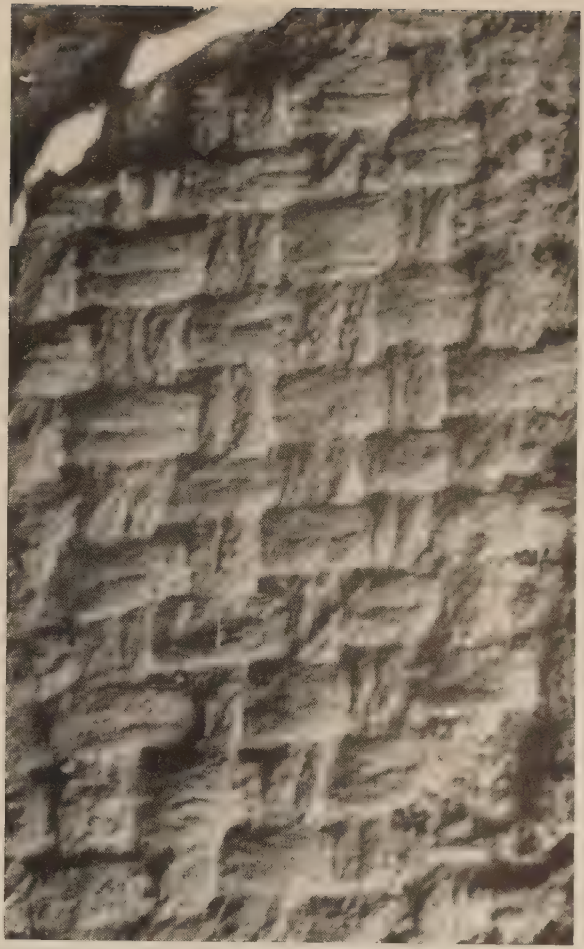
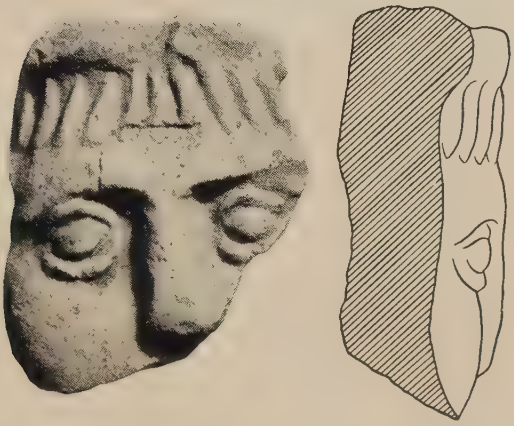
[1] Cohen = *Monnaies frappés sous l'empire romain*, 2nd edition.



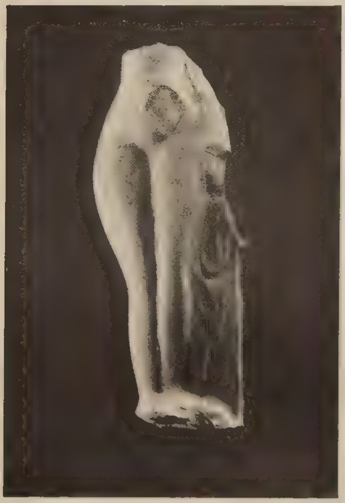
a. Bronze buckle with fragments of textile ($\frac{1}{1}$)



b. The same, enlarged ($\frac{16}{1}$)

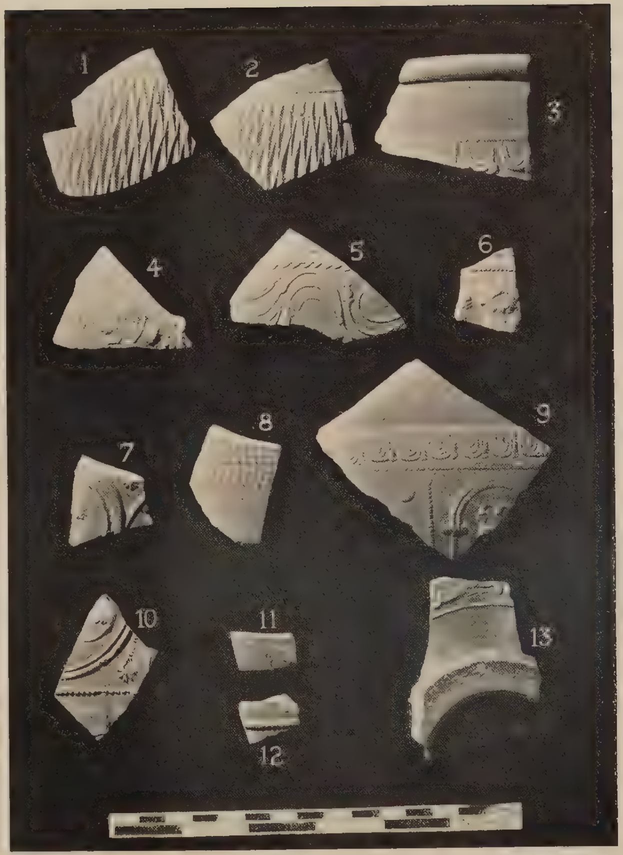


c. Clay antefix. (By courtesy of the *Journal of Roman Studies*)



d. Pipe-clay figurine

Published by the Society of Antiquaries of London, 1947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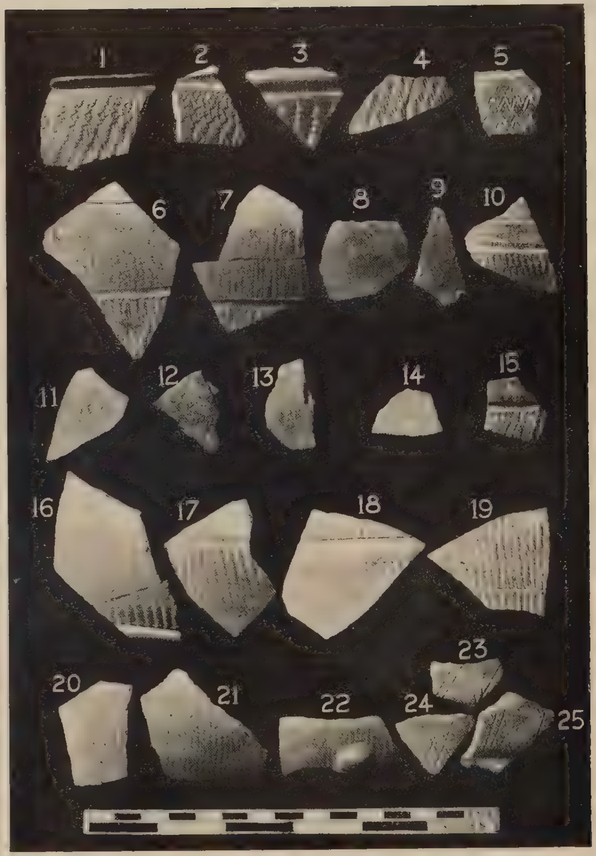
a. Decorated terra sigillata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b. Butt-beaker sherds

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2. Constantius II. Æ. A.D. 337 to 361.
Obv. Head right; CONSTANTIVS [P F AVG]
Rev. Soldiers facing, one standard; GLORIA [EXERCITVS]

3. House of Constantine. Æ.
Obv. Illegible.
Rev. GLORIA EXERCITVS type.

4. Magnentius. Æ. A.D. 350 to 353.
Obv. Head right; A behind head: D N M[AGNENTIVS P F AVG]
Rev. Two Victories, holding a wreath, within it VOT V MVLT X; [VICTORIAE] DD [NN AVG ET CAES]

5. Valentinian I. Æ. Cohen 37. A.D. 364 to 375.
Obv. Head right; D N VALENTINIANVS P F AVG
Rev. Victory, advancing l., holding wreath and palm; SECVRITAS [REIPVBLICAE]
MM. $\frac{\text{OF} \mid \text{II}}{\text{CONST}}$ (Arles)

6. House of Valentinian. Æ. A.D. 364 to 383.
SECVRITAS REIPVBLICAE type; Victory advancing left, holding wreath and palm.

7. House of Valentinian. Æ. A.D. 364 to 383.
GLORIA ROMANORVM type; Emperor, standing right, placing hand on head of kneeling captive and holding labarum.

8–10. Three Æ. 4th century.
'City Gate' type.
GLORIA EXERCITVS type. Two Victories, facing, holding an inscribed wreath.

SAMIAN POTTERY

Report by the late DR. T. DAVIES PRYCE, F.S.A.

Plate XXXVII *a*

Decorated Forms

1 and 2. Parts of two bowls decorated with 'cut-glass' technique. From the early occupation level of Site B. The earliest known examples of this form are those from the Scottish forts of the Antonine period. Cf. *Silchester*, pl. XXXVII, 4, and pp. 97–9; and *Proc. Soc. Ant.* xxiii (2nd series), p. 119.

3. Rim of a Form 37. The rim has a heavy lip. Hadrian–Antonine, *c.* A.D. 130–50. From Site A, this is one of the latest datable pieces found in the early occupation level.

4. Form 37. Decoration of festoons with a scroll in the festoon. Trajan–Hadrianic. From the early occupation level of Site C.

5. Form 37. Sherd decorated with scroll and a straight wreath above. Flavian. From Site B in the early bank.

6. Form 37. Sherd decorated with the remains of an ovolo, a rather large row of beads, and a mask. Antonine. From Site B in the early bank.

7. Form 37. Large medallion decoration; probably Antonine. From Site B, in the early bank.

8. Form 30. Rouletted decoration. Generally second century. From Site C, in the early bank.

9. Form 37. High plain band, ovolo bordered by a row of large beads. Panelled decoration demarcated by a row of large beads. Arcading in one panel, annular ornament in the other panel. Antonine. *c.* A.D. 150–70. From the wall trench of Site C, this is the latest datable decorated sherd found.

10. Form 37. Panel decorated with large scrolls. *c.* A.D. 150–60. From the wall trench of Site C. For both this and number 9 the dating is tentative, but they both belong to the second half of the second century.

11. Form 37. Late Flavian. Decoration shows fan-tail plants (cf. *O. and P.*,[1] pl. XV, 3). From the wall trench of Site C.

12. Form 37. Large bead-row typical of the Antonine period. From the same level as the last.

13. Form 37. Footstand and part of the wall. The decoration is probably a bear (cf. *O. and P.*, pl. XII, 1). Good glaze. Trajan–Hadrianic and more probably Hadrianic. From the late bank of Site C.

Period I. Earliest Occupation

No decorated forms were found.

Plain Forms. The material included two pre-Flavian 27's from Site B. From Site C, a Ritterling 12 of pre-Flavian date, and two 1/517's of pre-Flavian date (but not as early as some of this Form), a small 27 of pre-Flavian date, two 27's attributable to the first century, one Claudian 27, and one Claudian 33 of early Form. The fragments from Site A were unidentifiable.

Period II

Phase I. Pit C3 contained a base of Form 27 stamped OF IVCVN. A pre-Flavian potter as a rule, he began in Claudian times but worked mostly in the Flavian period. This stamp on Form 27 is recorded in Great Britain at Colchester, London, Newstead I, Richborough, and Silchester (Oswald, *Stamps on Terra Sigillata*, p. 148).

Phase II. Pit C2 contained two 18's, pre-Flavian and Flavian in date, a Flavian 27, an early 18 dated to Nero–Vespasian, and a 35 dated to Vespasian.

Period III. Early Occupation Levels

Decorated Forms (see pl. XXXVII *a*, nos. 1–4).

Bowl of unusual form (see pp. 151–2, fig. 10).

Plain Forms. (i) Of seven fragments of plates of Form 18, two are pre-Flavian in date, one Flavian, two Nero–Vespasian, and three of first century ware.

(ii) Base of plate stamped (C)ALVS F. This potter's stamp is usually found on Flavian ware, but this stamp is on a later 18/31 base.

(iii) Two rims of 15/17 both pre-Flavian.

(iv) Five portions of Form 27; one Claudian, one pre-Flavian, one Nero–Vespasian, and two first century in date.

(v) Form 80. Late first century.

(vi) Ritterling 12. Pre-Flavian.

(vii) Ritterling 9. Pre-Flavian.

(viii) Form 24/25. Pre-Flavian.

(ix) Form 31/18 to 31. Hadrian–Antonine.

(x) Form 32. Second half of the second century.

The decorated ware and numbers (ix) and (x) of the plain forms indicate a date in the Antonine period *c.* A.D. 150 or later as that at which this occupation level was put out of action by the superimposed early bank. The occurrence of the bowl of unusual form in this level is of especial interest.

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[1] Oswald and Pryce, *An Introduction to the Study of Terra Sigillata* (1920).

Period IV. Early Bank

Decorated Forms (see pl. XXXVII *a*, nos. 5–8). Fragments of an early Flavian 29, a Trajan–Hadrianic 37, and two Antonine 37's also occurred.

Plain Forms. (i) Base and footstand of a Form 18 stamped SABINI OF. Nero–Flavian.

(ii) Two bases of Form 18/31 with illegible stamps. Late first or early second century.

(iii) The Form 18/31 plates, two assignable to the late first or early second century, and the other to the Hadrianic period.

(iv) Three rims of Form 31. One Hadrian–Antonine in date but the other two are of Antonine date. One from Site B is sufficiently complete to date to *c.* A.D. 150–60 and is one of the latest datable pieces in the group.

(v) Globular bowl with rim reminiscent of a Form 67 but late. Probably early second century.

(vi) Part of a Form 33. Hadrianic or Antonine.

The bulk of the material is second century in date. The Form 31 plate of *c.* A.D. 150–60 is the latest piece, and for this to have been incorporated in the early bank a building date of *c.* A.D. 160–70 seems probable.

Period V. Wall Trench and Late Bank

Decorated Forms (see pl. XXXVII *a*, nos. 9–13). Two other fragments of Form 47 or 30 belong to the first third of the second century, and a Form 31 or 37 of Antonine date also occurred.

Plain Forms. (i) Wall of a Form 45. This was found in the wall trench of Site C and is dated as late second or early third century. This Form has not been found in the Scottish Military forts which are dated down to A.D. 180 at least. This is the latest datable piece of stratified Samian found in relation to the wall.

(ii) The wall of a bowl of Form 31, Antonine in date, and a fragment possibly of Form 38, of second-century date, were also found in the wall trench.

(iii) In the late bank were parts of ten Form 31's of Antonine date; one Form 32 of second-century date; two Form 33 bowls, with the concave external wall that is characteristic of all second-century material of this Form; one Form 38 of second-century date; two flanged bowls of Antonine date; a Form 18 of poor glaze of late second-century date; and a Form 43 of late second-century date which may last into the third century.

The material as a whole is of late second-century date. The Form 45 is the most definite piece of evidence, and suggests that the earliest possible date at which the wall could have been built is during the last twenty years of the second century.

SAMIAN VESSEL OF UNUSUAL SHAPE

Report by the late J. A. STANFIELD, ESQ.

Fig. 10

The vessel is of a bulbous shape with a curved and everted lip, a straight shoulder obliquely set, a sloping wall and a rounded base wall set in from the upper wall. The lower part of the wall and the footstand are missing. The upper part is freely decorated with horizontal mouldings of considerable neatness and the glaze is good. So elaborate are these mouldings that they conceal the class to which the vessel belongs. If, however, the mouldings are ignored and the exterior imagined as smoothed, so that the external profile follows the internal, it will be seen clearly that the bowl belongs to the type Walters 81.

Vessels of both sizes of Walters 81 are figured by Oswald and Pryce (*Terra Sigillata*, 1920, pl. LXI, 7, SVRDI M and 8, GNATIVS), the class of vessel being dated to the second half of the second century A.D. A closer parallel to the Silchester vessel, though of the larger size, exists in the London Museum (illustrated in the present writer's 'Unusual Forms of Terra Sigillata', *Arch. Journ.* xxxvi, p. 145, fig. 11, 51). In that instance there exists a concave moulding beneath the lip as in the Silchester fragment, the shoulder is high, and the upper wall deeply undercut at its junction with the lower part of the vessel. Yet another example exists at the London Museum (A. 28489, PATNA FE) which is roughly about the same size as the Silchester bowl.

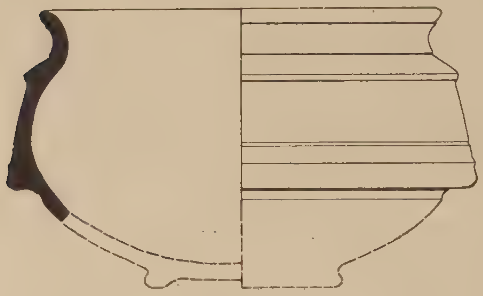
FIG. 10. Samian vessel of unusual type, see p. 151. (½)

I think, therefore, as the evolution of Samian shows that vessels tend generally to become less elaborate as time goes on that the Silchester vessel is an earlier variant of Walters 81.

As concerns its date, if it be assumed that the present vessel is earlier than Walters 81, and bearing in mind the glaze and good workmanship, it is probably a product of the time of Trajan made at the Central Gaulish potteries.

COARSE POTTERY

Period I. Pottery from the Earliest Occupation Levels, c. A.D. 45–65

(Fig. 11)

1. Butt-beaker of thin brown ware with cordons and two zones of decorated panels, the upper having rows of punctured dots, and the lower a rouletted design. The concavo-convex rim is well moulded, and this vessel is a foreign importation. Cf. Loeschcke, *Haltern*, type 84*a*, and for the decoration fig. 43, nos. 2 and 3. Also cf. 'North Ferriby', *Antiq. Journ.* xviii (1938), 267–9, and *Verulamium*, p. 159, and fig. 14, 31*a* and 31*b*, there dated as *c.* A.D. 10–43 (according to the revised dating discussed in *Antiq. Journ.* xviii, 366–7), and *Silchester*,[1] types 150–2, p. 167. The type was made at Nijmegen, and is rare at Hofheim. From Site E, in the earliest occupation level.

2. Butt-beaker of fine white pipe-clay ware, with a bevelled rim and an internal offset. Cf. 'North Ferriby' (*op. cit.*), pp. 268–9, fig. 3, no. 20. Here this form of rim is noted as occurring at Sheepen Farm, *Colchester*, and is assigned to the Tiberian period (fig. 4, no. 2). *Silchester*, type 153, p. 168, except that it lacks the angle-cordon below the rim. From Pit A1.

3. Oblique rimmed olla with a grooved rim for a lid. The ware has a light brown slip. Cf. *Verulamium*, fig. 18, 53, *c.* A.D. 10–43. From the earliest occupation level of Site E.

4. Cordoned urn of coarse black ware with a tooled decoration on the shoulder of cross-hatching in panels. Cf. *Verulamium*, fig. 16, nos. 45 *a* and 45 *b*, there dated as *c.* A.D. 10–43. Cf. also no. 16 below. From Pit A1.

5. Oblique rimmed beaker of silver-grey ware with a pinkish core and traces of soot outside. Possibly similar to *Silchester*, pl. LXXVIII, 2, from Pit X, Insula XXXVI, dated as late Claudian to early Nero.[2] From Site C, in the earliest occupation level.

6. Oblique rimmed beaker of hard buff ware with a pink slip. This is an imported type, and similar examples occur in the sub-Boudiccan level at Verulamium, dated A.D. 45–55. (*Archaeologia*, xc (1944), fig. 12, nos. 30–3, and p. 105.) Cf. also *Hofheim*, pl. XXXVII, nos. 125 *a* and 126. From Pit A1.

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[1] All Silchester references are to 'The Pottery found at Silchester', May (1916). References to the unpublished pottery from Colchester are due to the courtesy of Mr. M. R. Hull, and I am much indebted to him for his help and suggestions.

[2] From information kindly supplied by Prof. C. F. C. Hawkes, on the dating of this type at Colchester.

7. Base of white-coated pink ware. From Pit A1.

8. Oblique rimmed beaker of hard buff ware with a pink slip, cf. no. 6. For other examples found in a Claudian context cf. 'Romano-British Site at Ashtead', *Surrey Arch. Coll.* xxxviii, 197–202, fig. 4, 1.

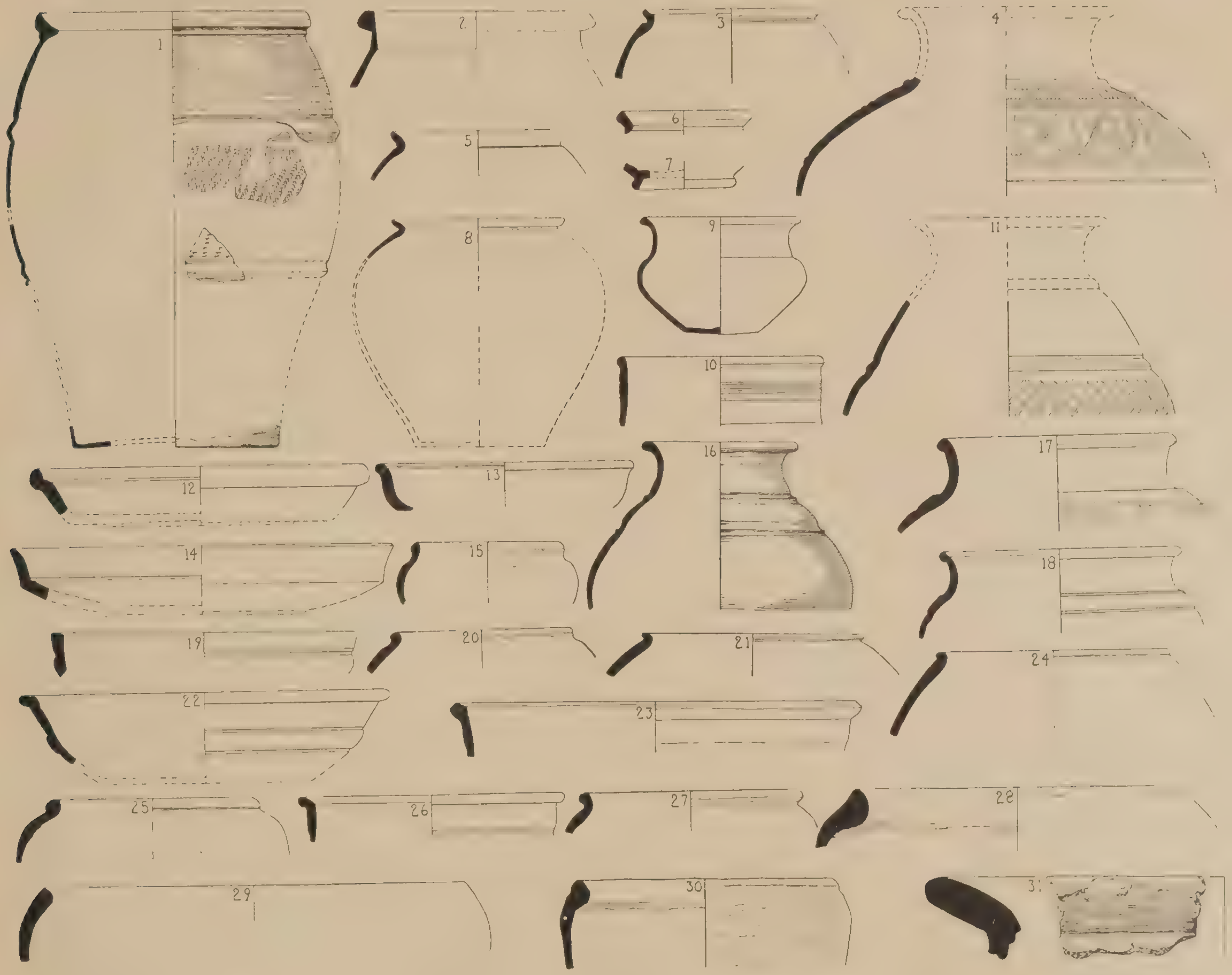

FIG. 11. Period I. Pottery from the earliest occupation levels, *c.* A.D. 45–65. (¼)

9. Small globular bowl of the same ware as no. 15, with a degenerate cordoned shoulder. Cf. *Verulamium*, fig. 15, 41, from group B, *c.* A.D. 10–43. From Pit A1.

10. Pot of grey ware with a grey-black surface Cf. no. 14. It has roughly tooled bands below the rim. From Pit A1.

11. Cordoned globular urn of grey ware coated with a reddish-brown lip, and with a lightly tooled cross-hatched design on the shoulder. Cf. nos. 4 and 16. From Pit A1.

12. Dish of coarse ware with a black finish. This is a degenerate local copy of Loeschcke's Haltern types 72–72*b*. Cf. also *Colchester*, type 29, and 'North Ferriby' (*op. cit.*), p. 265, fig. 2, no. 6. *Silchester*, type 186, p. 176. From Pit A1.

13. Shallow bowl with an internal groove below the lip. The ware is similar to that of no. 15. From Pit A1.

14. Coarse dish of grey ware with a grey-black burnished surface. A local copy of the imported Belgic ware, it is degenerate in form. Cf. *Verulamium*, p. 157, fig. 12, nos. 11–25, for a sequence showing departure from the Arretine prototypes. This form is paralleled in *Colchester*, type 21. From the earliest occupation level of Site E.

15. Bowl of grey ware with a red-brown slip. Cf. *Swarling*, pl. IX, 28, and p. 13, for a similar bowl found in a grave with a butt-beaker. From Pit A1.

16. Globular cordoned urn of thin ware with a light-brown varnish. These cordoned urns, Belgic in tradition, are modified in the hands of the Roman potters. For a discussion of this type cf. *Antiq. Journ.* xviii, 405. Cf. also *Richborough Report*, i, pl. XX, nos. 4 and 5, and pp. 92–3, for Claudian examples. From Pit A1.

17. Storage jar with a curved neck ending in a half-round moulded lip and ornamented on the shoulder with groups of parallel incised lines below a girth groove. Hard grey ware. Cf. the group of fifteen pots found at *Silchester*, pl. LXXVIII, no. 4, in Pit X, Insula XXXVI, and p. 198. It is suggested that this group is immediately pre-conquest, and represents a Belgic group intentionally concealed on the eve of the Roman conquest, but some of the types can now be dated to Claudius/Nero. From Pit A1.

18. Globular cordoned urn of grey ware with the remains of a black burnish on the neck and cordon. Cf. no. 17. *Silchester*, no. 6 of the group from Pit X. From Pit A1.

19. Bowl or cover of coarse black ware. Cf. 'Excavations at Ashtead, Surrey', *Surrey Arch. Coll.* xxxviii, p. 140, fig. 1, no. 10. This example is of a more developed form and was found in a Flavian context, but it is thought to be derived from the earlier Claudian form. Cf. *Silchester*, pl. LXXV, 11. From the earliest occupation level of Site C.

20. Bowl of coarse black ware. From Pit A1.

21. Bowl with a small flattened rim of the same ware as no. 24, but unlike it, as it lacks a true bead. From the earliest occupation level of Site E.

22. Bowl of coarse black ware with a level grooved rim and a wide girth groove on the wall. Cf. *Silchester*, p. 194, type 11, and May, *York Pottery*, p. 95, for a discussion of the development of this type of bowl. Its widest distribution in this country apparently occurs in Flavian times,[1] but it is known on the Continent at Haltern from 11 B.C. to A.D. 9. From the earliest occupation level of Site C.

23. Large bowl with an angular rim of grey ware with a red-brown slip. From the earliest occupation level of Site A.

24. Bead-rim pot of the same ware as no. 14. Cf. *Verulamium*, p. 171, 66 *a* and *b*, for discussion of the scarcity of bead-rim pottery there during the period *c.* A.D. 10–43. This is the only true Wessex bead-rim found in the earliest occupation level, and may represent a 'spill-over' from the Wessex area. From the earliest occupation level of Site E.

25. Bead-rim bowl of coarse black ware with a burnish on the rim and shoulder; the inside shows ridging. The high shoulder and rim form are typical of the Claudian series of bead-rims. Cf. 'Romano-British Site at Ashtead', *Surrey Arch. Coll.* xxxviii, p. 17, fig. 7. From Pit A1.

26. Bowl with a plain flat up-sloped rim of the same ware as nos. 9 and 15. From the earliest occupation level of Site A.

27. Roughly turned pot of coarse gritty black ware with an everted rim and bead. Cf. *Verulamium*, p. 195, fig. 34, 55–9, for a similar series of hand-made Claudian wares. From Pit A1.

28. Bowl of black ware with a distinctive pigeon-breasted profile. From the same level as the last, this is the commonest type of hand-made pots on the site. *Silchester*, pl. LXXV, 1.

29. A larger example of the same type as no. 28. From Pit C2, level 3, it shows that the type persisted until the early second century.

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[1] Mr. A. W. G. Lowther states that these 'offset' bowls, and the domed or fluted types as no. 19 occur so plentifully in Flavian levels at Ewell that he regards them as a typical Surrey type. At Silchester although these two examples were found in Period I levels, they are much commoner during Period II, and occur occasionally even in the early second-century levels.

30. Bowl of coarse hand-made ware with large white grits fired pink inside and black and sooty outside. Cf. no. 27. From Pit C3, it may have been derived from the earliest occupation level.

31. Rim of a large storage jar of the same coarse gritty ware fired pink. *Silchester*, pl. LXXVII, 8. From Pit A1.

Plate XXXVII *b*

1–4. Sherds of the butt-beaker illustrated on fig. 11, no. 1. From the earliest occupation level of Site E.

5. Sherd of thin red ware with a wavy-line decoration. Cf. *Silchester*, pl. LXVIII, 146, and p. 165, which is derived from the 'Herring-boned' olla, Loeschcke, *Haltern*, v, type 86, fig. 44, no. 6. From Pit A1.

6–7. Two sherds of rouletted butt-beaker of yellow ware. This is fairly coarse in texture and compares with the Colchester beakers which may have been made there. From Pit A1.

8–9. Two sherds of coarse brown ware with rough roulette imprints. Comparable decoration appears on the native butt-beakers of similar ware at Colchester. From Pit A1.

10. Sherd of a butt-beaker of pinkish ware. Cf. nos. 6–7. From the earliest occupation level of Site E.

11–14. Butt-beaker sherds with a finer decoration than that of nos. 8–9, but of the same class. No. 11 is in a fine pink ware, but the others resemble the coarser examples. Cf. *Haltern*, fig. 43, 4, p. 283. All from the earliest occupation level of Site E.

15. Sherd of butt-beaker in a brown ware. Cf. no. 10. From the earliest occupation level of Site C.

16–20. Sherds of butt-beaker of hard white ware decorated with bands of fine engine-turning and rouletting. These compare with the imported wares found at *Verulamium*, pl. LV A, 3–6, dated as *c*. A.D. 10–43. All from Pit C3. They are probably derived from the earliest occupation material which was thrown into this pit at a later date. Fig. 2, the section of Site C, shows areas where this level was disturbed.

21. Sherd of a beaker of ware similar to nos. 6 and 7. From Pit C3.

22. Sherd of butt-beaker of light sandy-brown ware with a conical boss on the band of ornament. Cf. *Silchester*, pl. LXX, 150, for a complete example, and p. 167 for notes on this ornamentation. From Pit C3 and probably derived from the earliest occupation level.

23–5. Three sherds of butt-beaker of coarse red ware decorated with diagonal grooved lines. Cf. Loeschcke, *Haltern*, fig. 43, 6. From the same level as the last.

This group of pottery represents the bulk of the material derived from the earliest occupation levels on Sites A, B, C, and E, and from the contemporary Pit A1. Some of the material from the later Pit C3 has been included as it was almost certainly derived from the earliest occupation level (see fig. 2 for the areas where it was disturbed). It falls into two distinct groups; the finer imported wares, and the native wheel-turned wares and hand-made cooking pots.

The imported wares, fig. 11, nos. 1–3, and 5–8, are all types which may have been imported into this country in pre-conquest times, but they are still found in Claudian levels at Richborough, Verulamium, and Colchester. The butt-beakers, fig. 11, nos. 1–2, and pl. XXXVII *b*, nos. 16–20, and 22–5, are on the whole early types which are closer to the Haltern examples rather than the Hofheim, and do not on the Continent seem to be later than the Tiberian period.

The native wheel-turned wares are distinguished by a polished burnish which varies in colour. Fig. 11, nos. 9–11, 13, 15, 23, and 26 have a red-brown slip or burnish; no. 16 a paler yellow-brown; nos. 14, 21, and 24 a grey-black burnish; whilst nos. 4, 12, 18–20, 22, and 25 are of coarse black pottery with a varying amount of black polish. Taken as a group it undoubtedly has a strong Belgic background and tradition, but the forms can be paralleled in Claudian levels elsewhere. As it does not represent a stratified Belgic group, any comparison with the rich Verulamium Group B, of *c*. A.D. 10–43 is unbalanced, but its local characteristics are so pronounced that it does not match at all closely the native material from the Verulamium sub-Boudiccan level of *c.* A.D. 45–55.

The absence of pedestal bases in the group is noteworthy. The associated coin of Cunobelin in Pit A1 seems to stress the earlier affinities of the group rather than the later.

The hand-made or roughly turned cooking pots, fig. 11, nos. 27–31, are plentiful in this period. This contrasts with Verulamium where they are not plentiful in Claudian levels (p. 195). The types illustrated are the typical forms found, and they apparently continued in use in diminishing quantities into the beginning of the second century. The large coarse grits and biscuit-like texture are distinctive.

The latest datable evidence from these levels is that of the Samian ware (p. 150). It is all certainly pre-Flavian, and the only rims sufficiently determinate to permit of a closer dating are Claudian. The earlier date for the period is, on this evidence, post-conquest, but with so strong a Belgic *facies*, a very early post-conquest date seems advisable. The later bracket is not easily determined. The succeeding sealing level on Site C is early Flavian. Some of the sigillata could be as late as Nero, but the fragments are so small that a definite Neronic dating was impossible. But as no level could be distinguished to cover the A.D. 54–68 period, and allowing for the 'time-lags' shown by the sigillata analysis at Colchester,[1] it would seem wiser to place the lower end of the bracket during this period, and date Period I as *c.* A.D. 45–65, tending to stress the fact that the group as a whole has more affinities with the Claudian end of the bracket.

Period II. (*Phase I.*) *Pottery from Hut* C1 *and Pit* C3, *c.* A.D. 65–100.

(Fig. 12)

1. Cooking-pot of hard brownish ware, with an inbent rim, and a beaded or half-round lip. The body is grooved. Cf. *Silchester*, pl. LXXVIII, 8, which lacks the grooving. The type is pre-Flavian at *Richborough*, iii, pl. XXXV, 242. Cf. also *Verulamium*, fig. 23, 2, and p. 173, where it is noted that this form is rare there, and does not appear until the last pre-Claudian generation. From Pit C3, level 2.

2. Mouth of a jar of coarse grey ware. Cf. Ashtead, *Surrey Arch. Coll.* xxxviii, 201, fig. 4, 3, dated as first century A.D. From Pit C3, level 1.

3. Base of a large jug of fine hard pink ware. The base has a moulded foot-ring, a common feature in first century jugs. From Pit C3, level 3.

4. Mouth and neck of a jug of fine grey pipe-clay ware. The flange is deeply undercut, the neck is tapered, and the base of the handle is broad. These are all early features and it approximates closely to the Haltern type 48 rather than the later Hofheim types. Cf. *Verulamium*, fig. 22, 1, and p. 172, for notes on the dating of these examples to the first half of the first century A.D.; *Silchester*, type 116, p. 145. From Pit C3, level 1.

5. Rim of a small jar of brown ware with a brown burnish. From Pit C3, level 1, it is probably derived from the earliest occupation level. Cf. fig. 11, 9–11, which are of the same ware.

6. Rim of a bowl of hard yellow-white ware. The rim is flat and reeded, its flatness being a Flavian characteristic in the reeded bowls series. Cf. *Verulamium*, fig. 35, 69, a first-century type. From the lower burnt level of Hut C1.

7. Dish of coarse black ware. As a local copy of a Belgic plate its form is degenerate. From Site C, in the burnt floor of Hut C1, in its earlier phase.

8. Wide-mouthed cooking pot of black ware. Cf. *Silchester*, pl. LXXVIII, 6, from Pit X. The type is Claudius/Nero to early Flavian as a rule, and occurs in Period I at Alchester. From the Post-Hole C5, which is contemporary with the earlier phase of Hut C1.

9. Rim of a bead-rim bowl with a pronounced neck. From a hearth pit on Site C.

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[1] Mr. C. F. C. Hawkes has drawn up a chart analysing the Terra Sigillata at Camulodunum (*Soc. Ant. Research Report*, no. xiv, fig. 41, p. 175) which shows that, at different periods, the maximum density of sigillata of each period is only reached after a 'time-lag' from the date of its manufacture.

10. Cup of fine polished black ware. A copy of the Arretine form, Loeschcke 7 or 8, the fluting is well moulded, a feature which brings it nearer to the Haltern forms, and to the Hofheim I forms of A.D. 40–51. By Claudian times this fluting is usually more 'smudged'. Thus this cup would seem to be an early import. The base is stamped VIO. Mr. M. R. Hull very kindly examined this stamp, and states that it is not found among the Belgic potters' stamps at Colchester. He suggested a possible retrograde reading DIV but said that this is an unusual practice with the Belgic potters. The only recorded Belgic stamps beginning VIO are: *C.I.L.* xiii, pt. 3, 2048,

(*a*) VIOLI OF, who worked at Reims, and

(*b*) VIOLVS FEC, who worked at Rheinzabern.

The stamp is not included in the list of stamps already known to occur at Silchester, although a cup of almost identical form, pl. LXXIII, 174, is stamped TYOH. From Pit C3, level 1, it must have been derived from the earliest occupation level.

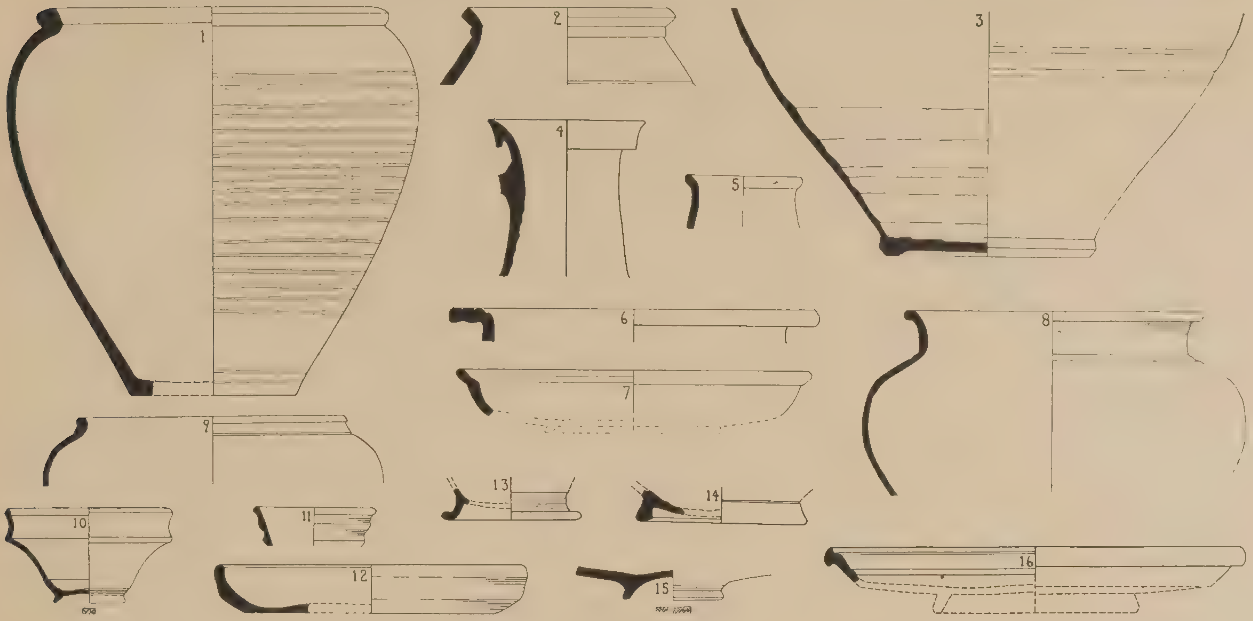

FIG. 12. Period II. (Phase I.) Pottery from Hut C1 and early hut levels, *c.* A.D. 65–100. ($\frac{1}{4}$)

11. Mouth of jug of soft brownish ware. Cf. *Silchester*, type 117, a common first-century type in Britain. From Site C, in the burnt floor of the earlier phase of Hut C1.

12. Shallow plate of coarse black ware with a flat base grooved with a circle inside its circumference. *Silchester* type 191 retains more of the original Belgic features in the raised base and groovings, and is paralleled at *Hofheim*, type 99, dated A.D. 40–83. This rough copy would fit at the end of the series. From the same level as no. 7.

13. Base of a *terra rubra* cup. This ware has a soft creamy core and a bright pink-red slip. The ware, and the high pedestal base, are typical of this series which is prevalent at Colchester, and is described by Mr. M. R. Hull as *Terra Rubra*, Class I. From Pit C3, it is almost certainly derived from the earliest occupation level.

14. Footstand of a dish of the same ware as the last. From Pit C3, level 1.

15. The base of a Belgic dish of fine hard grey ware. The high footstand and mouldings are in marked contrast to nos. 7 and 12, which are degenerate copies. It is probably an import. It is stamped with an illiterate scribble, a frequent feature in the work of the Belgic potters during the Claudian period, and it may be classed as a good Claudian imitation of the prototype. From the same level as nos. 7 and 12.

16. Plate of hard ware with a grey core and red slip burnt black in places. This is an imported Belgic copy of an Arretine plate, cf. Loeschcke, *Haltern*, types 72–72*b*. The type persists at *Hofheim*, type 97. Cf. *Silchester*, type 125. From Pit C3, level 1, it is probably derived from the earliest occupation level.

This group of pottery comes from the first Hut C1 (which was burnt down), the two Hearth Pits, and from Pit C3 (fig. 2). This pit was dug and filled up before the later floors of Hut C1 were laid down, and much material from the earliest occupation level had apparently been thrown into it. Especially typical of this group are nos. 4, 5, 10, 13–14, and 16, and these examples are more in place in Period I, *c.* A.D. 45–65, than in the present group. They were associated with a large number of sherds of the coarse hand-made cooking pots.

The pottery in the pit contemporary with the period, and perhaps derived from the Hut floor, are nos. 1, 2, and 3, all attributable to the second half of the first century A.D. The associated Samian base stamped OF IVCVN gives a more closely datable period for the filling of this pit. A Nero–Vespasian potter of A.D. 54–79 date, his work is scarcely likely to have reached Silchester and to have been lost much before the last quarter of the first century A.D. Of the six brooches found in this pit (fig. 7, nos. 5, 6, 10, 11, 14, and 16), many belong with the earlier group of pottery and must be referable to Period I, but no. 11 is still current in Flavian times.

The pottery found in the Hut floor itself, and in the two Hearth Pits, is nos. 6–9, 11–12, and 15. The dishes nos. 7, 12, and 15 continue to the end of the first century A.D., and the remainder are early Flavian or late first-century types. The period shows no material that need be of second-century date, but the lower end of the bracket is not very determinate, and an arbitrary dating of *c.* A.D. 65–100 is suggested.

Period II (*Phase II*). *Pottery from Hut levels and Pit* C2, *c.* A.D. 100–20

(Fig. 13)

1. Large storage jar of hard fumed clay with a neck cordon. Cf. *Silchester*, pl. LXXIX, 13; and *Richborough*, i, pl. XXV, 64, probably first century. From Pit C2, level 3.

2. Bowl of coarse ware with a keeled or carinated shoulder, and with a black burnish on the neck and shoulder. Cf. *Silchester*, pl. LXXVIII, 5 and 6, Claudius/Nero to early Flavian, and pl. LXXIX, 12. From Pit C2, level 3.

3. Jar of coarse grey ware with an everted rim, a cordoned shoulder bearing an incised decoration. From Pit C2, level 3.

4. Bowl of hard thin grey ware with an everted rim grooved internally, a marked neck, and degenerate cordons on the shoulder. From Pit C3, level 3.

5. Sherd of fine black decorated ware. Cf. *Silchester*, pl. LXX, 158, Flavian. From Pit C2, level 3.

6. Wide-mouthed jar of very coarse thick grey ware with a decorated shoulder. From Pit C2, level 3.

7. Rim of a storage jar of coarse pinkish pottery in the native hand-made tradition. From Pit C2, level 3.

8. Rim of a cordoned vessel of ware similar to that of fig. F, 4, but lacking the neck cordon and decoration. From Pit C2, level 3.

9. Rim of a bead-rim bowl of thick grey sandy ware. From Pit C2, level 3.

10. Bowl of fine ware with a grey core and a pinkish slip. The rim is turned over and the side is fluted. This is rather an unusual type, but the down-turned rim is paralleled without the fluted sides in a bowl from *Richborough*, iii, pl. XXXIV, 221, dated A.D. 50–75. From Pit C2, level 3.

11. Rim of a jug of hard red ware. Cf. *Richborough*, iii, pl. XXXIII, 208, Nero/Vespasian. From Pit C3, level 3.

12. Mouth of a jug of hard dirty white ware. Cf. *Wroxeter*, ii, fig. 18, 47, dated to the late first or early second century; and *Richborough*, iii, pl. XXXII, 190 and 191, Nero/Vespasian; also Ritterling, *Hofheim*, pl. XXXIV, 55. From Pit C2, level 3.

13. Foot of a tripod bowl. Cf. *Richborough*, ii, pl. XXXI, 155, and p. 101, with refs. and dating as La Tène III in Gaul, but first century on various sites, although they are not common after that date. *Silchester*, type 68. From Pit C2, level 3.

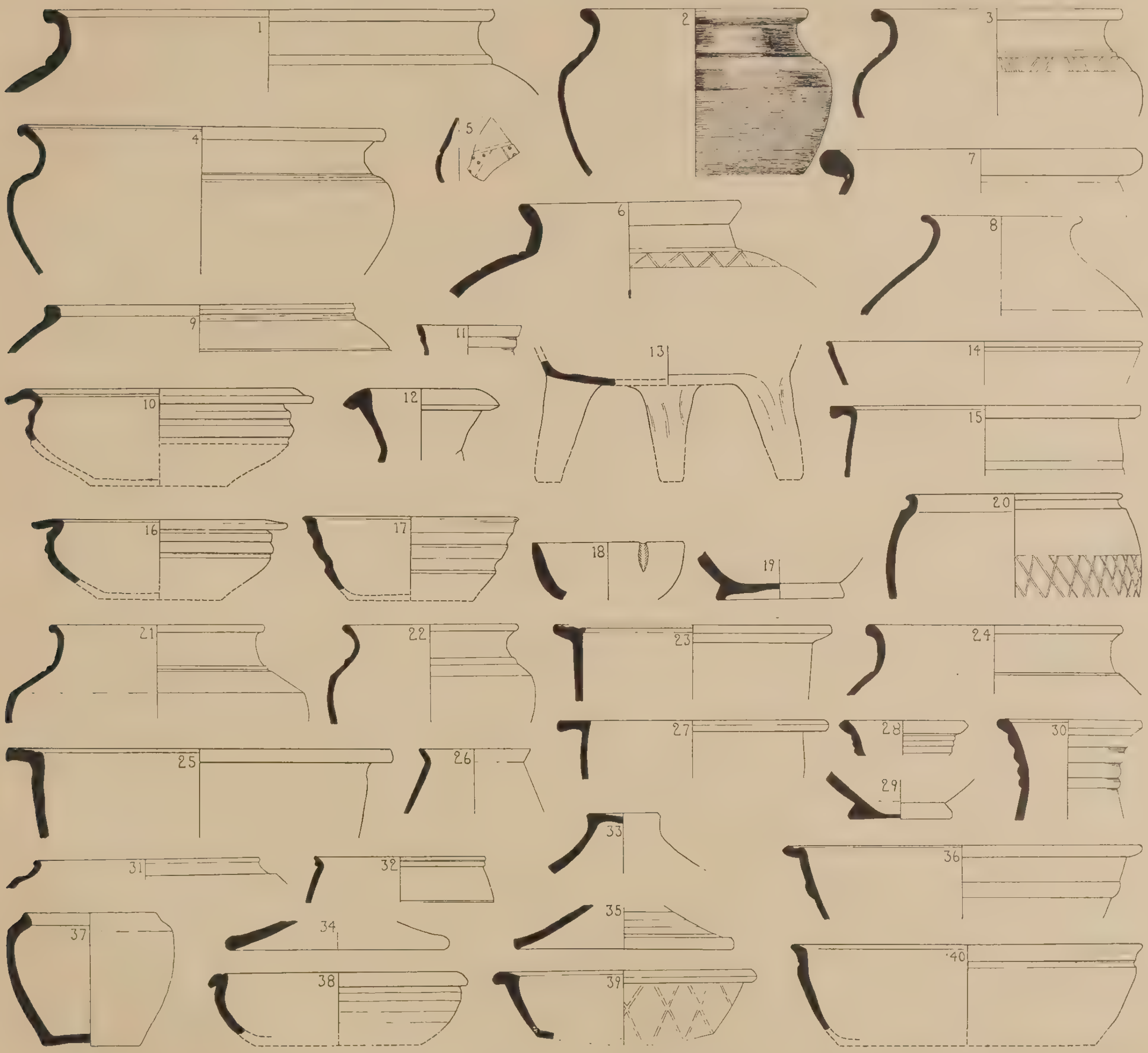

FIG. 13. Period II (Phase II). Pottery from hut levels and Pit C2, *c.* A.D. 100–120. ($\frac{1}{4}$)

14. Small bowl of hard, smooth dirty cream ware. From Pit C2, level 3.

15. Carinated flat-rimmed bowl of mica-dusted ware. This ware is common at *Silchester* (p. 114). The flatness of the rim is a characteristic of the Flavian period, and lasts into the Trajanic, and is still found in Hadrianic levels. From Pit C2, level 3.

16. Bowl of the same type as no. 10 but with a flatter rim. From Pit C2, level 3.

17. Bowl of fine hard grey ware with a fluted side. Cf. Ashtead, *Surrey Arch. Coll.* xxxviii, fig. 1, 10, p. 140, where the type is shown as a lid, and is related to *Silchester*, p. 183, type 11.

18. Small crucible of thick sandy ware with three depressions decorating the rim. From Pit C2, level 3.

19. Base of a flagon of hard pink ware. From Pit C2, level 3.

20. Jar of gritty grey ware with a black burnished neck and shoulder and a lattice decoration. This type is usually dated *c.* A.D. 100–20 on the Wall, and it is not usually later than Hadrian's reign there. Cf. *The Roman Fort at Balmuildy*, pl. XLV, 28; Simpson,[1] pl. XVI, 26; and *Poltross Burn*, pl. III, 26, for Hadrianic types. From Pit C2, level 3.

Fig. 13, nos. 1–20 are all from Pit C2. For the *Terra Sigillata* see p. 150. The associated small finds are the bronze key and nail-cleaners, fig. 9, nos. 10 and 14, and the brooches, fig. 7, nos. 3, 7, and 9. Fig. 13, nos. 3, 14, 16, and 17, are pottery types which occur in the Trajanic and last into the Hadrianic period. So a date *c.* A.D. 100–20 seems best suited to this group.

21. Jar with a sharply carinated shoulder. Cf. no. 2.

22. A small version of the last type.

23, 25, and 27. Three flanged bowls. The rim of the first is horizontal, whilst it is up-sloped in the two later examples. Cf. *Verulamium*, fig. 13, 30 and Collingwood, *Archaeology of Roman Britain*, fig. 52, nos. 18–20. No. 27 with the flat rim is Flavian, but nos. 23 and 25 are usually later than A.D. 100 lasting into the reign of Trajan, but less frequently into that of Hadrian.

24. Rim of hard grey ware. Cf. nos. 21 and 22.

26. Rim of thin hard grey ware.

28. Mouth of jug with the upper ring or moulding pronounced; an early second-century characteristic.

29. Base of a flagon of smooth hard white clay.

30. Mouth of a flagon of pink ware with five rings. Cf. *Verulamium*, fig. 30, 34, dated as first quarter of the second century.

31. Rim of soft ware with a shiny chocolate burnish. It is noteworthy in the sharpness of the shoulder angle and probably belongs to the same series as no. 20.

32. Rim of a rough-cast beaker. Sherds of these beakers occurred throughout Period II levels but few rims were found. Cf. *Richborough*, iii, pl. XXXIX, 298–302, for notes on this series, which occur from Claudian times to *c.* A.D. 140.

33, 34, and 35. Parts of pot lids, cf. *Silchester*, pl. LXXIX, 7, and *Richborough*, i, pl. XXVII, 91. No. 34 is in native hand-made ware, and is a copy of the more finely shaped Roman examples. These lids are common in Flavian and early second-century levels. For dated examples cf. *Archaeologia*, lxvi, 251, fig. 16, nos. 51, 52, A.D. 71–100 and A.D. 80–120 from London.

36. Offset bowl of coarse grey ware. Cf. similar types in Period I, fig. 11, no. 22.

37. Complete cooking pot of the native hand-made gritted ware, showing that it persisted into this period.

38. Small bowl of crude black ware. This may be a poorer locally made copy of the finer examples nos. 10 and 16. Cf. also Ashtead, 'Roman Villa', *Surrey Arch. Coll.* xxxviii, 201, 8, of Claudian date.

39. Pie-dish with trellis decoration. The sharpness of the carination is typical of the first half of the second century A.D. Cf. Collingwood, *Archaeology of Roman Britain*, p. 227.

40. Bowl of hard silver-grey ware. This is possibly a later variant of the fluted bowl no. 17, and comes from the occupation level outside the occupation on the floor of Hut C1, but is contemporary with it.

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[1] *Trans. C. and W. A. A. Soc.* xiii, n.s. (1922).

Nos. 21–7, 29–30, 33–5, 37, and 38 were found in the occupation level, 26, on the Clay Floor of Hut C1. It is structurally contemporary with Pit C2, and agrees with it in date, several types being especially typical of the Trajanic period. It all accumulated after Clay Floor II was laid down, and that itself sealed Clay Floor I, which contained a coin of Domitian of A.D. 86 or 87.

The burnt level over Clay Floor I contained many types similar to those illustrated in Pit C2, and level 26, but nos. 32 and 36 were additional types found in this layer. On Site E, the debris level outside the boundaries of Hut E1 also appeared to belong to this period. It contained the coin of Domitian of A.D. 87, and among the pottery the latest datable pieces were nos. 28 and 31. This level also contained a sherd of whitish clay coated with green enamel glaze. Cf. *Silchester*, p. 100, for details of this ware which was made at St. Rémy-en-Rollat, Vichy, and in the Allier district of France between A.D. 40 and 50.

Period III. Pottery from the Early Occupation Level, c. A.D. 120–60/70.

(Fig. 14)

1. Mortarium. This type, with the bead rising above the rim, appears for the first time in this level. Cf. Collingwood, *Archaeology of Roman Britain*, fig. 52, 8, and p. 220, where it is noted as being general about A.D. 150 and a common Antonine type at Balmuidy and Birdoswald Turret. Cf. also *Wroxeter*, i, 79, flanged mortaria nos. 126–62, dated the beginning of the second to the end of the third centuries A.D. From the Early Occupation level of Site C.

2. Fragment of a mortarium of hard light sandy-buff material, with a bead and rolled rim, the bead being well below the rim. This type seems to occur from A.D. 100 to 270. Cf. *Silchester*, 151, type 2*b*. The stamp on the rim is SATVRNINVS in two lines, cf. *Silchester*, pl. LXXXIII *a*, 16: and *C.I.L.* vii, 1334, 48. From the Early Occupation level of Site C.

3. Another mortarium rim stamped as the last. From the Early Occupation level of Site E.

4. Part of a mortarium with a bead and rolled rim, the bead being well below the rim. Late first or early second century, cf. *Wroxeter*, i, p. 78, with notes on no. 58. From the Early Occupation level of Site E.

5. Broken rim of a mortarium with the moulded bead well above the rim. Cf. *Richborough*, iii, pl. XLI, 357, dated as first century; but it is more usual later in the second century, cf. *Wroxeter*, i, p. 79 (Gellygaer of early second-century date).

Two other fragments of mortaria occurred; one with an upward sloping rim hooked at the end comparable to one from Caerwent (*Wroxeter*, i, 46, p. 78) dated at the beginning of the second century, and the other, with a higher bead, which may be a little later, but still a common early second-century type.

6. Jug mouth of a hard white ware. Cf. *Wroxeter*, ii, fig. 18, 46, dated A.D. 80–120. From the Early Occupation level of Site A.

7. Jug mouth of hard grey ware with a short three-ringed neck and a curved profile. These features are Antonine characteristics (A.D. 138–92), cf. *Silchester*, p. 139. From the mound of disturbed earth on Site B.

8. Mouth of a jug with a five-ringed neck. The rings are less well moulded than in the next example, and although this number of rings is an early feature, the pronounced rim and weakness of the moulding would tend to indicate an early second-century date. Cf. *Verulamium*, fig. 30, 34, dated to the first quarter of the second century. From the Early Occupation level of Site C.

9. Jug of light buff clay ware, hard, sandy, and thin in texture, with strap handle. Cf. *Richborough*, i, pl. XXVI, 70, dated as first or early second century; *Wroxeter*, i, fig. 17, 3, dated A.D. 110–30; and *Silchester*, pl. LXII, 118. This type of jug is most common in the Hadrianic period (A.D. 117–38). From the Early Occupation level of Site B.

10. Bowl of hard white pipe-clay ware. This is a copy of a Ritterling 12 (A.D. 40–80), and may have been derived from an earlier level. From the Early Occupation level of Site E.

11. Frilled bowl of mica ware. Cf. *Silchester*, pl. XLVIII, 56, a copy of Dragendorff 29. From the Early Occupation level of Site A.

12. Bowl of mica-ware with a frilled rim, cf. *Silchester*, p. 114. The widest distribution of this ware, which is fairly common on this site, is during the first century, and it seems to go out of use about the middle of the second century. From the Early Occupation level of Site A.

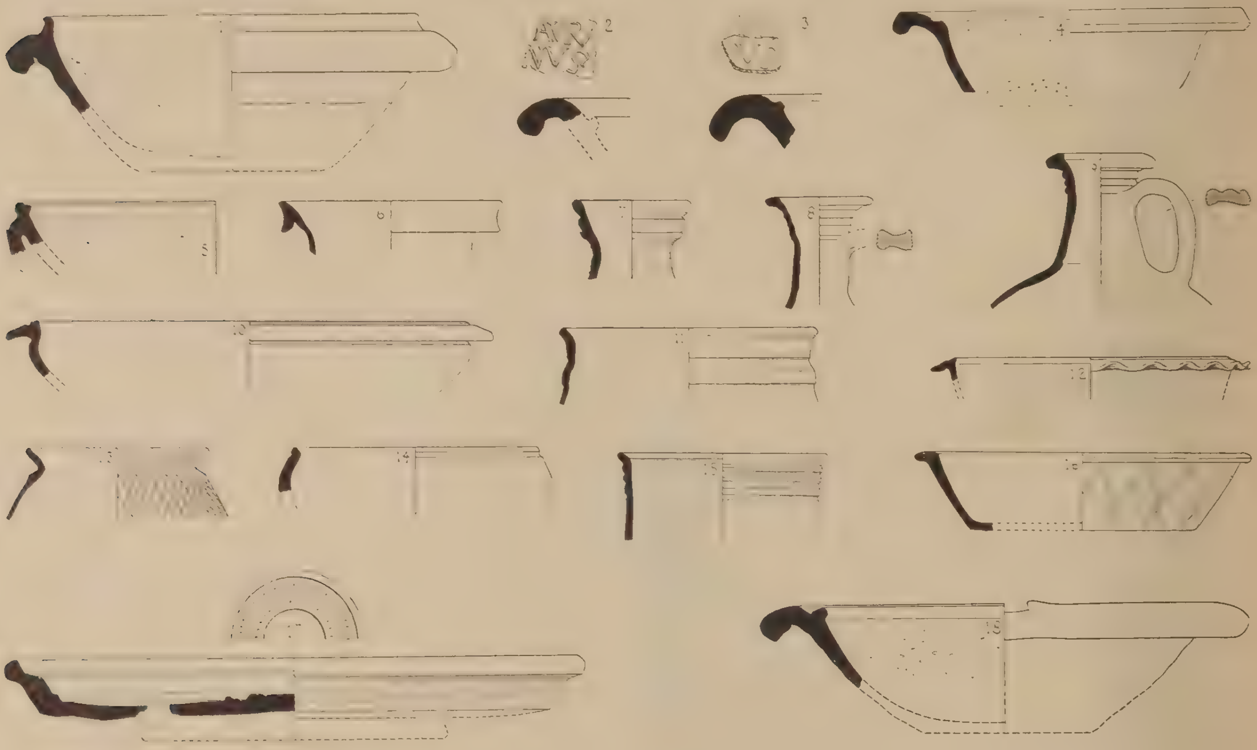

FIG. 14. Period III. Pottery from early occupation level, *c.* A.D. 120–160/170. ($\frac{1}{4}$)

13. Beaker of hard light grey ware of fine texture, with an oblique rim, an angular shoulder, and a trellis pattern on the shoulder. Cf. Collingwood, *Archaeology of Roman Britain*, fig. 56, 64, for Antonine dating. From the Early Occupation level of Site A.

14. Bead-rim bowl of mica-ware. From the Early Occupation level of Site C.

15. Rim of a hard grey ware. From the Early Occupation level of Site E.

16. Pie-dish with a flat rim, curved side, and decorated with trellis-work. For notes on this type see Collingwood, *Archaeology of Roman Britain*, fig. 54, 44, dated from A.D. 120 onwards to mid-second century; *Richborough*, i, pl. XXIV, 46, dated late first or early second century; *Silchester*, pl. LXVI, 199, for which cf. type 49 of Curle, *Newstead*, p. 256, pl. L *b*, fig. 6, where it occurred chiefly in Antonine deposits. From the Early Occupation level of Site E.

This type was common in the early occupation level, and was accompanied by two pie dishes with bead-rims. These are usually later in date, and are found chiefly in the late second century, but the earlier examples with straight sides, obliquely set (cf. type 41, Curle, *Newstead*, p. 259, fig. 32, no. 10), are Antonine, and are dated A.D. 140–80, although they are also known to occur as early as Hadrianic levels.

17. Large dish of thick coarse, hard, brownish pottery, with a bevelled rim offset from the base by an internal quarter round mouldings and a raised decorated centre. This dish appears to be a late and degenerate survival of the copies of imported Belgic ware, or even a Samian

form 18 31, in which an attempt has been made to copy the rouletted central decoration. The foot has been restored from the Hurstbourne Tarrant example cf. 'The Belgae of Gaul and Britain', *Arch. Journ.* lxxxvii (1931), fig. 32, 7–10, but it is still functional as it lies below the plane of the base. From the Early Occupation level of Site C.

18. Mortarium of buff ware with a moulded bead just below the level of the rim. An early second-century type, cf. *Wroxeter*, i, fig. 19, 54, dated A.D. 80–120. From the mound of disturbed earth on Site B.

Other types of coarse pottery which occurred in this level included:

(i) Rims, bases, and sherds of rough-cast beakers, mostly of late first or early second-century date.
(ii) A number of lids of varying forms.
(iii) Parts of poppy-head beakers, cf. *Verulamium*, p. 197, which states that they are common *c.* A.D. 90–160, but after A.D. 125 the form is less round and tends to become more pear-shaped. They do not survive the second century. The fragments were not sufficiently complete to be closely dated.
(iv) Two sherds of *terra rubra* (cf. fig. 12, nos. 13 and 14), and a few sherds of *terra nigra*, which are survivals.
(v) Parts of carinated bowls with reeded rims. Mostly early examples of Flavian date.
(vi) Ollae with everted rims. These were plentiful and vary from 'early cavetto' rims to the Antonine examples.
(vii) Storage jars of coarse thick pottery.
(viii) Bowls of native ware. These are found in much smaller quantities than in the earlier levels.

Nos. 18 and 7, from the mound of disturbed earth of Site B, are early second-century and Antonine types respectively, and as this mound was probably thrown up at the time the early bank was built they are well in context at the suggested date.

The rest of the group, from the Early Occupation level, is either early second century or Antonine in date. Nos. 1, 7, 13, and 16 are typically Antonine and agree with the *Terra sigillata* (p. 150) which was dated up to *c.* A.D. 160–70.

Period IV. Pottery from the Early Bank, c. A.D. 160/70.

(Fig. 15, nos. 1–6)

1. Mortarium of thick coarse, dirty, cream ware, with a flat bead, knobbed rim, and a corrugated side. Cf. *Silchester*, pl. LXV, 133, a development of type 2*d*, p. 151, which is ascribed to the first period of Poltress Burn, A.D. 120–80. Cf. also *Wroxeter*, i, fig. 19, 94, a late second-century type. This type occurs at *Balmuidy* (pl. XLII), which is typically Antonine. From the Early Bank of Site C.

2. Beaker of soft sandy orange ware with a thin wall. A late variant of the butt-beaker. From the Setting-out bank of Site E.

3. Bead-rim dish of coarse grey ware decorated inside with trellis work. Antonine. From the Early Bank of Site B.

4. Olla of fine grey ware with a red and grey core, and with a shoulder decoration of vertical incised lines. Cf. *Verulamium*, fig. 33, 50, which is the final weak and devolved Antonine form of a late Belgic type. From the Early Bank of Site B.

5. Pie-dish of coarse black ware. Cf. notes on fig. 14, no. 16. Antonine. From the Early Bank of Site B. This type was very common in this period, both with and without trellis decoration, and was accompanied by bead-rim pie-dishes.

6. Mortarium of hard buff sandy ware with a shaped bead below the level of a hooked rim and a corrugated wall. Cf. *Wroxeter*, i, fig. 19, 54, dated A.D. 80–120, and *Balmuidy*, pl. XLI, 25, Antonine. From the Early Bank of Site B.

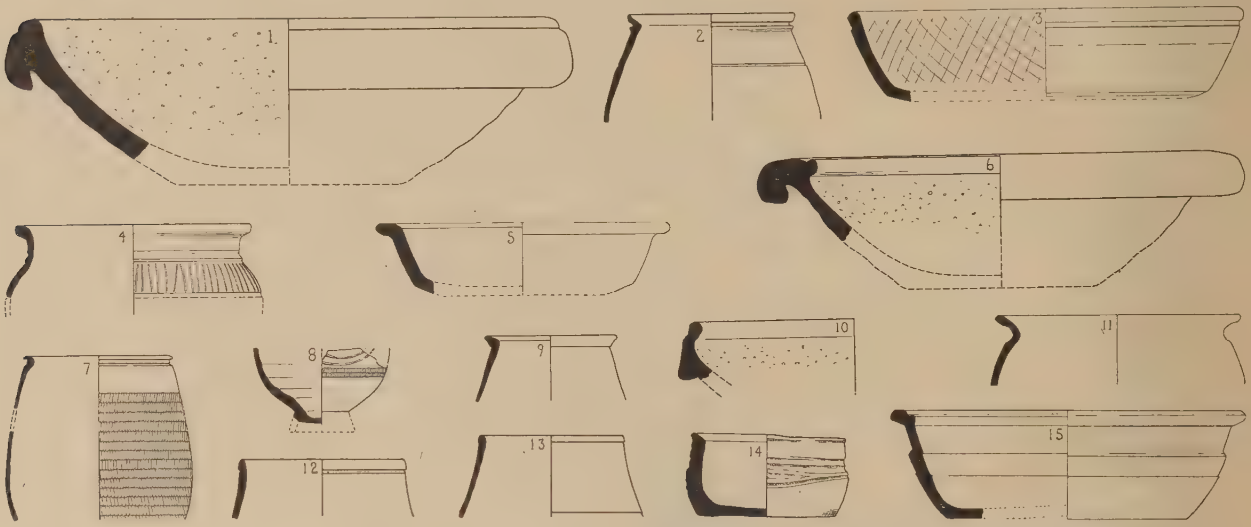

FIG. 15. Period IV. Nos. 1–6. Pottery from the early bank, *c.* A.D. 160/170. ($\frac{1}{4}$)
Period V. Nos. 7–13. Pottery from the wall trench and late bank, *c.* A.D. 190/210. ($\frac{1}{4}$)
Nos. 14–15. Miscellaneous pottery

Among the other mortaria fragments was one comparable to fig. 14, no. 5, with an angular bead. These are found in Antonine deposits at Wroxeter. Other examples of ollae were comparable to those from *Verulamium*, fig. 33, 49, Antonine, and *Richborough*, iii, pl. XXXIX, 309, and pl. XL, 319 and 320, dated A.D. 80–140. This group of pottery, in association with the Samian and the coin of Antoninus Pius, A.D. 154–5, gave a definite Antonine date for the building period of the Early Bank, for which a date of A.D. 160/70 seems most appropriate.

Period V. Pottery from the Wall Trench and Late Bank, c. A.D. 190–210.

(Fig. 15, nos. 7–13)

7. Rouletted beaker of very fine black ware with a metallic glaze. Cf. *Silchester*, pl. XLII *b*, 8, a bulbous beaker with rouletting decoration in bands which made its appearance on the Continent at the beginning of the first, and survived until the beginning of the third century at Niederbieber. From the Wall Trench of Site C.

8. Part of a Rhenish beaker of thin pink paste with a hard purple-bronze metallic glazed slip decorated en barbotine in scrolls. It has a high conical bung-shaped foot (a variety of Dragendorff form 52). Cf. *Silchester*, pl. XLI, 4, which has the same form. This type of beaker characterizes the Antonine grave-groups at Cologne and Trier on the Continent, and by the time of Severus A.D. 190–210, it takes on a form with a more conical neck and a more bulbous body. This particular example does not quite approach the Severan form, and was probably manufactured earlier than that period, and is of late Antonine date. From the Wall Trench of Site E.

9. Rim of a beaker of hard cream ware with a black metallic slip. This may be the rim of a painted black slip-glazed ware beaker, cf. *Silchester*, pl. XLII *b*, nos. 1–7, of the same date as the last. From the Late Bank of Site E.

10. Rim of a mortarium of hard buff ware with an upright moulded rim and a down-bent flange. This is a late example of the flanged rim, cf. *Balmuidy*, pl. XLII, 48, which compares with

the type which occurs in the late second-century deposit at *Corbridge*,[1] fig. 8, 108–9, and is akin to *Silchester*, pl. LXV, 132, which may date to the early third century. From the Wall Trench of Site E.

11. Olla of a black-burnished ware with an early cavetto rim. The rim does not overhang the bulge of the body, a late second-century feature. From the Wall Trench of Site C.

12. Rim of hard ware with a cream core and a black metallic slip. Cf. no. 9. From the Late Bank of Site E.

13. Rim of the same ware as no. 9. From the Late Bank of Site B.

Among the rest of the pottery of this period a number of sherds of white-painted motto-beakers were found. Cf. *Silchester*, pl. XLII *a*, 7. These vessels were made at Cologne in the Antonine period and survived until the fourth century. This is the first level in which they occurred at Silchester, although without a complete section it is not possible to differentiate Severan and earlier examples.

Fragments of barbotine 'Castor ware' hunt-cups also occurred. These begin to appear about the end of the first third of the second century, and last to the turn of the second and third centuries. It may well be that at Silchester they could be found in an earlier level than Period V, but none were found in the Antonine Early Bank, whereas they are present in the Wall Trench.

The coarse pottery appears to be Antonine with types which occur at the turn of the second and third centuries. This agrees with the Samian (p. 151), and gives a date post A.D. 190 as that of the wall build.

(Fig. 15, nos. 14–15)

14. Very rough complete pot, scored with a slight horizontal decoration. From a scaffold hole outside the North Wall, unstratified.

15. Offset bowl of coarse black ware. From the late occupation level over the street in Site C, it shows that this type persisted post A.D. 120. Cf. fig. F, 22.

Pottery from Sites J and L. The Outer Earthwork, c. A.D. 45–65.

(Fig. 16)

1. Rim of a butt-beaker of hard, sandy drab ware. The rim is oblique and has a flat band inside. Cf. *Silchester*, pl. LXX, 154, which has a comparable rim, and is one of the more developed forms of butt-beaker rim. Cf. also 'North Ferriby', *Antiq. Journ.* xviii (1938), p. 268, fig. 3, 24. From Site L, in the 'pottery area', earlier than the Outer Earthwork.

2. Rim of a bead-rim bowl of hard wheel-turned black ware. Cf. *Silchester*, pl. LXXV, 9, although the present example may not have an omphalos base. Cf. also *Verulamium*, fig. 21, 66*b*, and notes on the occurrence of this type in the quarter-century following the Claudian invasion. This form of bead-rim is fairly common at Silchester. From the same level as the last.

3. Rim of a bead-rim bowl of softer ware than the last, and of a smooth paste with a black core and dark brown surface. Wheel-turned. Cf. no. 2. From the same level as no. 1.

4. Sherd of a butt-beaker of very rough sandy brown ware. From a butt-beaker of either local manufacture or an English import, it lacks all the features of the finer imported continental beakers. Cf. pl. XXXVII *b*, nos. 6 and 7. From the same level as no. 1.

5. Rim of an olla of hard, gritty, grey ware. The everted rim has two internal groovings for a lid. Cf. *Verulamium*, fig. 18, 57, from the Belgic Group B dated A.D. 10–43. From the old turf line of Site L, but found beyond the tail of the Outer Earthwork and under the wash of the bank.

6. Rim of a bead-rim bowl of the coarse gritty 'native-ware' with a chocolate brown burnish. Cf. fig. 11, nos. 27–31 for other examples of the native wares. From the same level as no. 1.

7. Rim of a straight sided bowl of coarse 'native ware'. From the same level as no. 1.

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[1] *Arch. Ael.* viii (3rd ser.).

8. Rim of a storage jar of light brown 'native ware'. Cf. *Silchester*, pl. LXXVII, 8, from Pit A. Insula XII. Cf. also fig. 11, no. 31. From the same level as no. 1.

9. Rim of a bead-rim bowl of hard, light-brown ware, much finer than the hand-made gritty ware. Originally it had a brown burnish. From the old turf line of Site L, in association with no. 5.

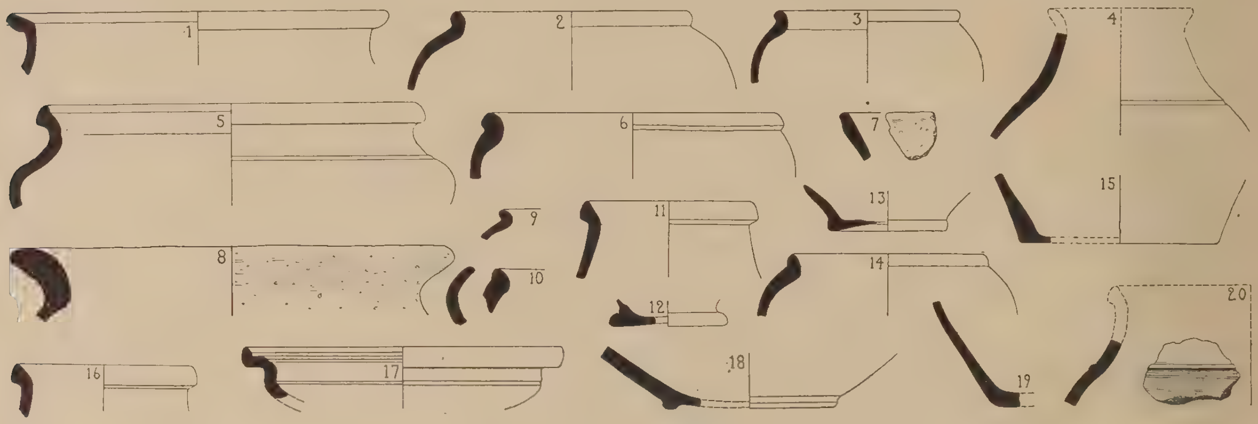

FIG. 16. Pottery from sites J and L. Outer Earthwork, *c.* A.D. 45–64. (¼)

10. Rim of a coarse hand-made bowl of gritty 'native-ware' with a pink firing. This rim shows the pigeon-breasted profile. Cf. fig. 11, no. 30. From the same level as no. 5.

11. Rim of a butt-beaker of rather coarse ware with a grey core and a black burnish. Cf. no. 1. From Site L, in the wash of the bank of the Outer Earthwork.

12. Base of fine, hard, grey ware with a ring groove and a concave under surface. Cf. *Silchester*, pl. LXVIII, 144. From Site L, in the old turf line in association with no. 5.

13. Base of a jug of creamish sandy ware. Cf. *Richborough*, i, pl. XXIII, 33, of mid-first-century date. The ware and form of this base are so definitely Roman and non-Belgic, that it serves as a dating piece for the group of pottery in which it was found. From Site L, in the same level as no. 1.

14. Rim of a bead-rim bowl of burnished red ware. From Site L, in the wash of the bank of the Outer Earthwork.

15. Base of hard sandy drab ware. From the same level as no. 1, it might possibly be the base of this butt-beaker.

16. Rim of a butt-beaker of ware and form similar to that of no. 11. From the hearth in the Hearth Pit of Site L, and past the Outer Earthwork.

17. Rim of a Belgic plate of hard ware with a grey core and a black slip. The wall is fairly well moulded and the lip is pendent. This is a native copy of a Haltern 72*b* or Hofheim 97*a* form. The form is Claudian at Hofheim. Cf. *Verulamium*, fig. 12, nos. 8–10, for notes on the form, and also 'North Ferriby', *Antiq. Journ.* xviii (1938), p. 265, fig. 2, 4, and 5. From Site J, in the slip of the bank, this is the only sherd in this area that could be suspected of being derived from the outer earthwork, but cannot be used as a dating sherd.

18. Base of hard grey coarse ware with a flat ring-base. From Site L, in the same level as no. 11.

19. Base of a roughly made pot of coarse ware with a greyish core and red firing. From the same level as the last.

20. Sherd of a butt-beaker of hard black gritty ware. The tooling is well defined in the neck cordon, and the sherd has horizontal groovings with faint vertical striations between them. Probably a native imitation of the imported beakers and of inferior technique. From the same level as no. 11.

The pottery illustrated in Fig. 16 comes from different levels and falls into three groups.

Group 1. Nos. 1–4, 6–8, 13, and 15, were found in the 'pottery area' which replaced the old turf line of Site L, and extended in part under the tail of the Outer Earthwork. This group, therefore, antedates the Outer Earthwork, or is at latest contemporary with its build. It may perhaps have been a temporary 'bivouac' of the builders of the bank. No small finds, red-glazed wares, or brick were found with this group. Nos. 6–8 are of the 'native-ware' and as such are not closely datable. Nos. 2 and 3, the bead-rim bowls, although they may be of earlier date, are often more plentiful in the Claudian period. The butt-beakers are developed local forms, but no. 13, the base of a Claudian jug, must be post A.D. 45. No pottery was found in the primary build of the bank, but 12 pieces of hard red Roman brick were found. This does not appear at Colchester before A.D. 49 (*see* p. 140), so that there is sufficient evidence to be able to say that the earthwork could not have been built until after the Conquest at the earliest. Such a small indeterminate group of sherds is quite insufficient for determining an accurate date, and the latest date at which it could have been built can only be deduced from external evidence. The reasons for suggesting A.D. 61–5 are given on p. 140.

Group 2. Nos. 11, 14, and 18–20, were found in the wash of the bank of the Outer Earthwork, and may possibly have been derived from it, but they cannot be used for dating purposes. They are in keeping with the last group, and are all apparently of native manufacture. They were found in association with red Roman brick and tile.

Group 3. Nos. 5, 9, 10, and 12, were found in the old turf line. Although this extended under the tail of the bank of the Outer Earthwork, the area in which the sherds were found was beyond the tail, so they have not been included in *Group* 1. They were only sealed by the wash of the bank. They all have Belgic characteristics, but again their association with many pieces of Roman brick and tile prevents this being regarded as a Belgic level. Two unidentifiable sherds of red-glazed ware also occurred in this level and a rim of Samian ware of early fabric. This is so small and rubbed that a definite opinion on its form or ware can only be tentative, but it may possibly be an early South Gaulish Form 18.

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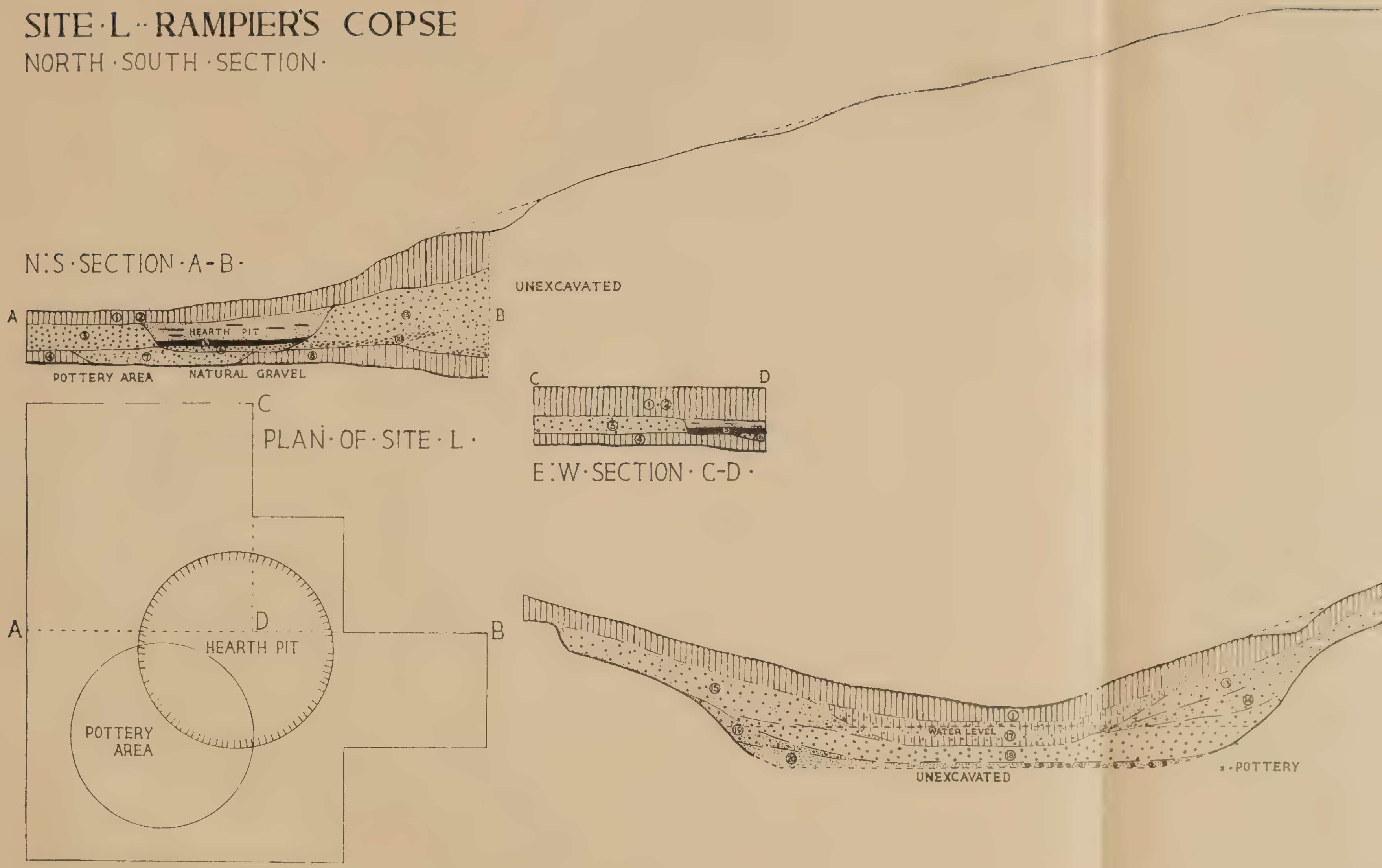
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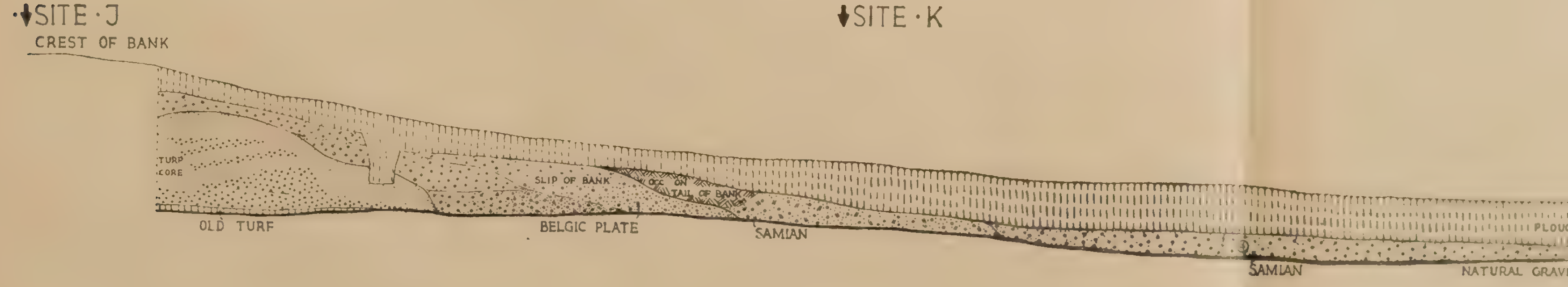
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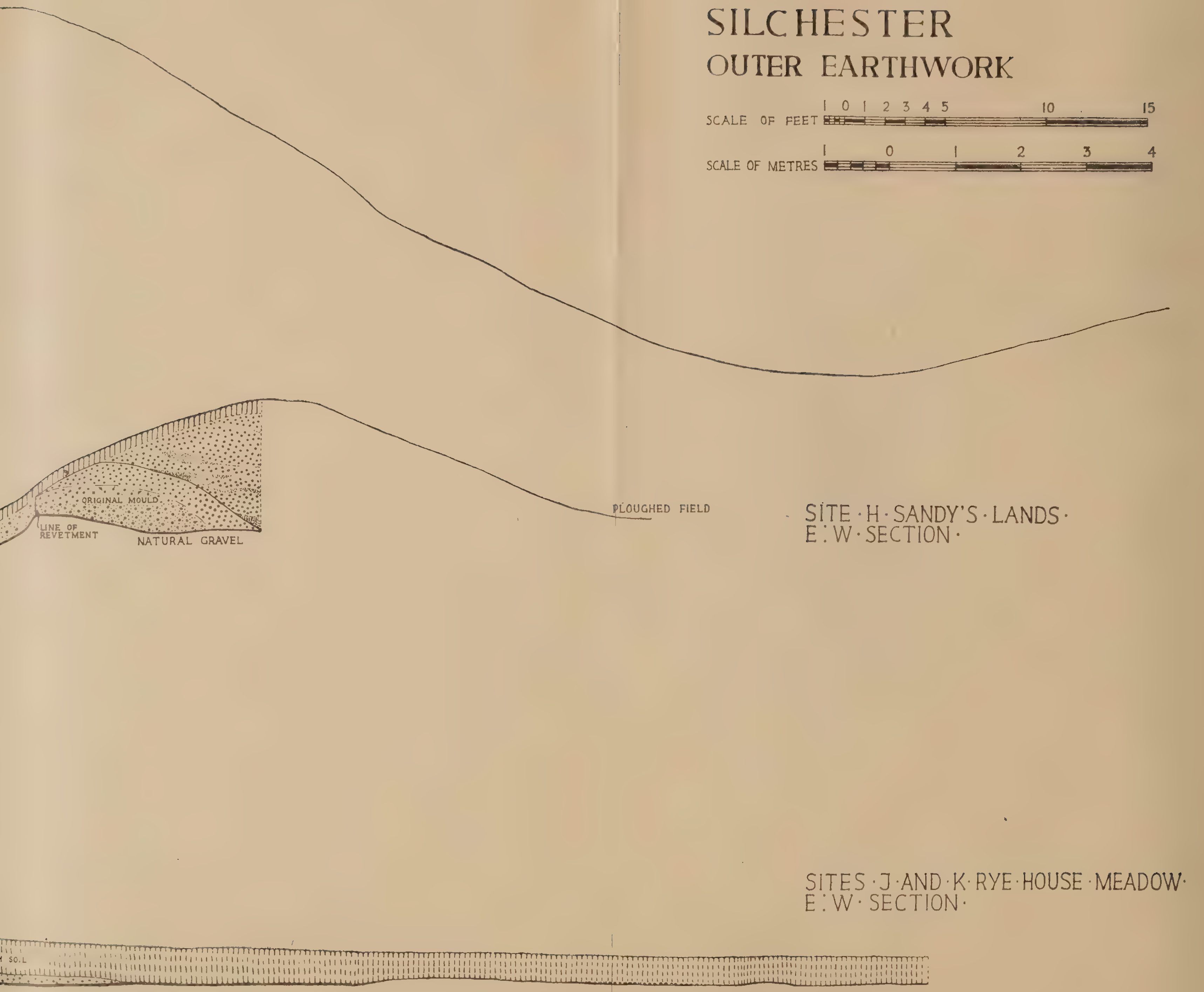
OUTER EARTHWORK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E : W · SECTION ·
SITES · J · AND · K · RYE · HOUSE · MEADOW ·
E : W · SECTION ·
SOIL

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